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Examining the relationship between social support, work-family conflict and well-being

Geertje van Daalen

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SOCIAL SUPPORT, DOES IT MAKE A DIFFERENCE?
Examining the relationship between social support, work-family conflict and well-being

Proefschrift

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Contents

Chapter 1

General Introduction

INTRODUCTION

In the last decennia the participation of women in the labor force has increased considerably (Brennan, Barnett, & Gareis, 2001; SCP, 2006). Hence the traditional family model, with the husband as breadwinner and the wife as homemaker, is more and more becoming a rare phenomenon. Today, most men and women are part of a dual-earner couple (Bond, Galinsky, & Swanberg, 1998; SCP, 2006). Although, both men and women of these dual-earner couples combine a paid job with home responsibilities, men generally spend more hours on the job than women, whereas women generally spend more time on household tasks and childcare.

Occupying multiple roles may have positive consequences, such as increased economic resources, improved self-esteem and enhanced social interaction (Barnett, 1999; Crosby, 1991; Moen, Robison, & Dempster-McClain, 1995), however, many employed people report difficulties in combining work and family responsibilities. That is, they find it hard to balance the demands from their job and their family life (Carlson, Brooklyn Derr, & Wadsworth, 2003; Cinamon & Rich, 2002; Duxbury & Higgins, 1991). This may lead to an interrole conflict between work and family roles, called work-family conflict.

Work-family conflict may have serious detrimental consequences for one's health and well-being (Allen, Herst, Bruck, & Sutton, 2000; Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005; Frone, 2000; Frone, Russell, & Cooper, 1997; Grant-Vallone & Donaldson, 2001). Especially, the relationship between work-family conflict and stress-related outcomes, such as depression, burnout and physical health complaints are strong and reported frequently (Allen et al., 2000).

Previous research showed that social support, i.e., the exchange of resources between at least two persons, aimed at helping the person who receives the support, is an important resource to promote one's health and well-being, as social support reduces stressors and strains (Beehr & McGrath, 1992; Kaufmann & Beehr, 1989; Sarason, Sarason, & Pierce, 1990). However, how social support affects stressors and strains remains unclear (Beehr, Farmer, Glazer, Gudanowski, & Nadig-Nair, 2003; Kaufmann & Beehr, 1986).

This dissertation addresses the role of social support in relation to work-family conflict and well-being. More specifically, it examines how social support relates to a) work-family conflict, b) well-being and c) the relationship between work-family conflict and well-being. Moreover, as men and women generally are found to differ in social support, work-family conflict and well-being, gender differences in these variables as well as in the relationship between these variables are examined.

The remaining part of this introductory chapter explains the main concepts of this dissertation: work-family conflict, social support and well-being, considers gender differences in these concepts, and shortly discusses previous research on the relationship between the constructs. Finally, the outline of this dissertation is provided.

Work-family conflict

Work-family conflict is defined as "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" (Greenhaus & Beutell, 1985, p.77), such that participation in one domain becomes more difficult due to the demands of participation in the other domain and vice versa (Adams, King, & King, 1996; Greenhaus & Beutell, 1985). Work-family conflict can be bi-directional (Adams et al., 1996; Frone, Russell, & Cooper, 1992a), that is, work can interfere with family (work-to-family conflict; WFC) and family can interfere with work (family-to-work conflict; FWC) (Allen et al., 2000).

Greenhaus and Beutell (1985) distinguished three forms of work-family conflict: time-based, strain-based and behavioral-based conflict. Time-based conflict occurs when time devoted to a role in one domain (i.e., the work or home domain) leaves too little time to participate in the other domain. In this situation, various demands from both the work and home domain compete for one's restricted amount of time and make it impossible to distribute one's time in such a way that the demands of either domain are fulfilled (Greenhaus & Beutell, 1985). Strain-based conflict occurs when strain experienced in one role domain interferes with effective performance of role behaviors in the other domain. This form of conflict exists when strain symptoms (e.g. fatigue and irritability) from one domain make it impossible to address the responsibilities in the other domain (Greenhaus & Beutell, 1985). Behavioral-based conflict occurs when specific behavior required in one role domain is incompatible with behavior in the other domain. This form of conflict is likely to occur as one is unable to adjust behavior to comply with the expectations of different roles within the work and home domains (Greenhaus & Beutell, 1985).

In line with previous research, which mainly focused on time and/or strain-based conflict (Greenhaus & Parasuraman, 1994; Rotondo, Carlson, & Kincaid, 2003), this dissertation includes time and strain-based conflict. Moreover, it distinguishes between work-to-family and family-to-work conflict, referred to as WFC and FWC respectively. When no distinction is made in the direction of conflict it is referred to as work-family conflict.

Work-family conflict can have negative consequences for both the individual and organization (Duxbury & Higgins, 1991; Kossek & Ozeki, 1998). These negative consequences of work-family conflict are generally organized into three categories; work-related consequences (i.e., job satisfaction, organizational commitment, turnover intention, and job performance), non-work related outcomes (i.e., marital satisfaction, and satisfaction with family and leisure time), and stress related outcomes (i.e., burnout, depression, and physical complaints) (Allen et al., 2000; Eby et al., 2005). Although work-family conflict can have serious consequences in all three categories (Allen et al., 2000), the most consistent and strong relationships are found between work-family conflict and stress related outcomes. Therefore, the main focus in the present dissertation is on the relationship between work-family conflict and well-being.

Social support

Social support is not a unitary concept, but rather a meta-construct comprised of several theoretical constructs (Vaux, 1988), hence many definitions of social support exist, each describing one of these theoretical constructs. Central to many definitions of social support is the exchange of resources. Therefore, in the present dissertation social support is defined as a complex transactional process in which resources are exchanged between at least two persons, with the aim of helping the person who receives the support (Friedman & Greenhaus, 2000; Shumaker & Brownell, 1984). It involves providing empathy, care, love and trust (emotional support), actual aid in time, money and energy (instrumental support), evaluative feedback (appraisal support), and information, advice and suggestions (informational support) (House, 1981). Social support can be received from various sources from different life domains. Generally a distinction is made between sources from the work domain, i.e., supervisor and co-workers or colleagues, and sources from the home domain, i.e., spouse, relatives and friends (King, Mattimore, King, & Adams, 1995). Despite the agreement on the existence of multiple sources of support, studies that examine multiple sources from the work and home domain are scarce. In addition to previous research that mostly focused on instrumental and emotional support, the present study incorporates all four types of support. Furthermore, the present study examines two sources from the work domain (supervisor and colleagues) and two from the home domain (spouse and relatives and friend).

Social support is considered a beneficial resource to cope with stress, and therefore to enhance health and well-being (Kaufmann & Beehr, 1989; Sarason et al., 1990). However, as previous research findings regarding the underlying mechanisms or role of social support in the stressor-strain relationship are inconclusive (Beehr et al., 2003; Ganster, Mayes, & Fusilier, 1986; Kaufmann & Beehr, 1986), it remains unclear exactly *how* social support relates to individual health and well-being. That is, many studies found a direct or main effect of social support on strains (e.g., Beehr, Jex, Stacy, & Murray, 2000; Brotheridge, 2001; Muhonen & Torkelson, 2003), whereas others report that social support moderates the relationship between stressor and strain (e.g., Bakker, Demerouti, & Euwema, 2005; Beehr, King, & King, 1990; Frese, 1999; Fried & Tiegs, 1993; Lepore, 1992). Social support may also prevent someone from experiencing stress, in this case social support indirectly affects strains through preventing the stressor to occur (House, 1981; Viswesvaran, Sanchez, & Fisher, 1999).

Health and well-being

Generally, health and well-being are constructs that are difficult to define (Danna & Griffin, 1999). As there is considerably variation in the meanings and definitions of health and well-being, in empirical research the exact meaning of the two terms mainly is derived from their operationalisation (Danna & Griffin, 1999). Moreover in the vast body of literature there is no clear distinction between health and well-being. For example, according to the World Health

Organization (WHO), health is best defined as "a state of complete physical, psychological and social well-being, rather than the absence of diseases and infirmity" (WHO, 1946), whereas well-being generally refers to a long, healthy and happy life (Diener, 1984; Veenhoven, 2000; Warr, 1990). Consequently, this lack of clarity in the terminology and conceptualization of health and well-being resulted in overlap between the constructs, which in turn leaded to the interchangeable use of both constructs among studies.

Despite this lack of clarity, Danna and Griffin (1999) argue that, "health generally appears to encompasses both physiological and psychological symptomology within a more medical context (e.g., reported symptomology or diagnosis of illness or disease)" (p. 364), whereas well-being generally is a defined as a more comprehensive concept taking account of the "whole person" (p. 364). They consider health to be a sub-component of well-being and propose that the term health should be used when physical, physiological, mental and/or psychological indicators are of interest, also when applied to organizational settings. The term well-being should be used, when, in addition to these physical, physiological, mental and/or psychological indicators of health, context-free life experiences (i.e., for instance life satisfaction) are of interest (Danna & Griffin, 1999). Within the organizational setting, the inclusion of job-related experiences like job satisfaction is frequently used.

Following the conceptualization of Danna and Griffin (1999), the present dissertation examines well-being, as it includes measures of general health, psychological well-being and life satisfaction. It should be noticed that these measures are self-reported measures and hence reflect subjective or perceived well-being.

Social support, work-family conflict and well-being

Both social support and work-family conflict have been studied extensively in relation to well-being. Work-family conflict as it may impair one's well-being, and social support as it may enhance one's well-being. For example, previous studies showed that work-family conflict, or either WFC or FWC relates positively to physical health complaints (Frone, Russell, & Barnes, 1996; Frone et al., 1997; Grandey & Cropanzano, 1999), and psychological health outcomes, such as depression (Frone et al., 1992a; Frone et al., 1997), leads to higher stress levels (Parasuraman, Purohit, Godshalk, & Beutell, 1996; Parasuraman & Simmers, 2001), and lower life and job satisfaction (Aryee, Fields, & Luk, 1999; Bruck, Allen, & Spector, 2002; Carlson & Kacmar, 2000; Perrewé, Hochwarter, & Kiewitz, 1999) (See Allen et al., 2000; Eby et al., 2005 for comprehensive reviews). Social support has been found related negatively to well-being outcomes such as depression (Beehr et al., 2000), physical and psychological symptomatic distress (Fenlason & Beehr, 1994; Schirmer & Lopez, 2001), and burnout (Baruch-Feldman, Brondolo, Ben-Dayan, & Schwartz, 2002; Halbesleben, 2006). Furthermore, social support has been found related positively to life and job satisfaction (Ganster et al., 1986; Schirmer & Lopez, 2001; Wan, Jaccard, & Ramey, 1996).

Most previous studies investigated work-family conflict and social support independently from each other. The studies that jointly investigates how social support and work-family conflict affect employee well-being generally showed that social support decreases work-family conflict and increases well-being either directly or through lowering work-family conflict, and that work-family conflict decreases one's well-being (Adams et al., 1996; Aycan & Eskin, 2005; Burke & Greenglass, 1999; Carlson & Perrewé, 1999).

Gender differences in work-family conflict and social support

Although both men and women may experience work-family conflict and receive social support, gender differences in work-family conflict and social support exist. Most studies showed that women experience more WFC and/or FWC than men. For example, Williams and Alliger (1994) found women to report both more WFC and FWC than men, while others found women to report only more WFC (Cinamon & Rich, 2002; Duxbury, Higgins, & Lee, 1994), or more FWC than men (Behson, 2002). Only a few studies reported no gender differences (Eagle, Miles, & Icenogle, 1997; Frone, Russell, & Cooper, 1992b; Kinnunen, Geurts, & Mauno, 2004).

The scarce studies that distinguished between time and strain-based WFC and FWC when examining gender differences revealed that women experience more of some of these forms of work-family conflict, but not all. Carslon, Kacmar and Williams (2000), for example, found women to report higher levels of both strain-based and time-based FWC, as well as higher levels of strain-based WFC. For time-based WFC, they did not find any gender differences. Wallace (1999) also found women to report more strain-based WFC than men, but did not find gender differences for time-based WFC.

Social support has been demonstrated to be beneficial for both men and women, however, men and women receive social support from different sources. With respect to social support from the home domain, men generally receive more social support from their spouse than women (Reevy & Maslach, 2001; Vaux, 1985), whereas women generally receive more social support from relatives and friends than men (Joplin, Nelson, & Quick, 1999; Olson & Shultz, 1994; Wohlgemuth & Betz, 1991). Results are inconclusive with respect to social support received from the work domain, i.e., some studies report no gender differences at all (Geller & Hobfoll, 1994), while others find that women receive more social support from the work domain (Fusilier, Ganster, & Mayes, 1986). For example, Roxburgh (1999) found that women received more social support from colleagues than men.

THE CURRENT STUDY

Although there is a rich theoretical and empirical history of research on social support, work-family conflict and well-being, studies that jointly investigate these topics are limited. Consequently, questions about how social support can help to overcome or decrease work-

family conflict; how social support can improve one's well-being while facing work-family conflict; whether men and women equally benefit from social support when confronted with work-family conflict; and whether work-family conflict differently relates to men and women's well-being are still unanswered.

Therefore, the present dissertation aims to answer the following central research question: *"How can the relationship between social support, work-family conflict and well-being be explained, and if there are gender differences in this respect, how can these be explained?"*. To do so, specific parts of the relationship between social support, work-family conflict, and well-being are examined and explained, while trying to fill some gaps in previous research.

Following Eby et al. (2005) who encourage researchers to "continue to expand their thinking about the role of social support and more consistently examine sources of support in both the work environment and family environment" (p. 186), the present study includes various sources of social support from both the work and home domains to gain a better understanding of the relationships between social support, work-family conflict, health and well-being. Furthermore, previous research on work and family life over-emphasized the work-domain (Eby et al., 2005). The present study addressed both the work and home domains by including work-to-family conflict (WFC) and family-to-work conflict (FWC). Moreover, the outcome variables did not pertain to the work domain specifically, i.e., variables like job satisfaction, job attachment and satisfaction with supervisor were not used to indicate well-being. To overcome the lack of specificity in measures (cf. Eby et al., 2005), various sources of social support, both directions (e.g., WFC and FWC) and different types of work-family conflict (e.g., time and strain-based conflict) as well as multiple indicators of well-being were included, enabling a finer-grained analyses of the relationships between social support, work-family conflict and well-being.

In order to address the specific parts of the relationship between social support, work-family conflict, and well-being, the following research questions have been formulated and form the central focus of the subsequent chapters of this dissertation.

- What is the underlying mechanism of social support in the work-family conflict – well-being relationship?
- How are different sources of social support related to health, psychological well-being and life satisfaction, and are there gender differences in this respect?
- Are work and home-related sources of social support related differently to work-to-family conflict (WFC) and to family-to-work conflict (FWC)?
- How can someone's own WFC and FWC, and one's spouses' WFC and FWC explain one's health, psychological well-being and life satisfaction?
- How does family-to-work conflict relate to mental health outcomes after controlling for four other job characteristics, and what is the joint effect of FWC and the other job characteristics on these mental health outcomes?

Outline of the dissertation

The studies reported in this dissertation address the relationship between social support, work-family conflict and well-being. Each chapter comprises a submitted or published journal article that can be read independently. This does imply, however, that sometimes there is some overlap in the introductory section of the chapters, as a coherent theoretical introduction had to be developed for each separate chapter.

The dissertation consists of five empirical studies conducted among Dutch employed men and women. We collected data among one large sample of Dutch employed men and women, that were used for the four studies described in Chapter 2 through 5. Although for each study we used a different selection of this total sample, i.e., dual-earners (Chapter 3 and 4), employed and married individuals (Chapter 2), and married couples (Chapter 5), there is some overlap in the data used, as well as in the description of the sampling method. The study described in Chapter 6 is based on a totally different sample.

In order to get more insight into the underlying mechanism of social support in relation to subjective general well-being in Chapter 2 three models, each representing a mechanism through which social support may be effective, i.e., the stress-buffering, the direct-effect and indirect-effect model were examined. In each model work-family conflict was treated as the stressor. By testing these three models we tried to answer whether social support relates directly or indirectly to well-being, or moderates the relationship between work-family conflict and well-being. To answer the question whether social support acts differently for men and women, it was tested whether the models differed across gender.

In accordance with previous research that showed the existence of different sources of social support stemming from both the work and home domain, Chapter 3 investigates whether four different sources of social support, i.e., supervisor, colleagues, spouse, and relatives and friends can explain gender differences in health, psychological well-being and life satisfaction.

Chapter 4 investigates the relationship between social support and work-family conflict. Previous research showed that work-family conflict is a stressor for many employed people. As social support has been demonstrated to reduce stressors, in this study we examine how different sources of social support relate to time and strain-based work-family conflict, and whether these sources of support differently relate to men's and women's time and strain-based work-family conflict.

In addition to the negative consequences of work-family conflict for one's well-being, someone's well-being may also be affected by the work-family conflict experienced by one's spouse. That is, the negative consequences of work-family conflict may cross over between the spouses. Chapter 5 addresses both individual and crossover effects of WFC and FWC on one's own and one's spouse's general health, psychological well-being and life satisfaction among 164 dual-earner couples.

Employed people have to deal with many stressors each day, stressors stemming from the work as well as from the home-domain. Such a home-related stressor is FWC. Chapter 6 describes how a this home-related stressor (FWC) is related to emotional exhaustion and mental health problems, and how FWC jointly with other job stressors relate to mental health outcomes among a specific sample of 1008 mental health care employees. In addition to three common job stressors (i.e., workload, autonomy and social support from colleagues), a job stressor specific to the health care sector (i.e., emotional demands) was included in this study.

Finally, Chapter 7 summarizes and discusses the main findings of the previous chapters, describes theoretical and practical implications and provides suggestions for future research.

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Chapter 2

The Influence of Social Support on Work-Family Conflict and Well-Being: Testing the Stress-Buffering, Direct, and Indirect Effect of Social Support*

ABSTRACT

This study examined the relationship between social support, work-family conflict, and well-being among a sample of Dutch employed men and women (N=611). The effects of social support on well-being were examined in reference to work-family conflict by testing three models, representing the stress-buffering, the direct and the indirect effect of social support. Structural equation modeling was used to test each model. In addition to testing these three models, gender differences in the relationship between social support and work-family conflict and well-being were examined, using within and between-group analyses. The fit indices of the analyses for the whole sample showed that the direct-effect model had the best fit to the data. The within-group analyses showed that for both men and women the direct-effect model again showed the best fit to the data. The between-group analyses did not reveal significant gender differences with regard to the direct-effect model. We conclude that social support is related directly to well-being, irrespective of the severity of work-family conflict.

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INTRODUCTION

After two decades of ample research on work-family conflict it has been well established that work-family conflict has negative consequences for one's well-being (Allen, Herst, Bruck, & Sutton, 2000; Frone, Russell, & Cooper, 1997; Grant-Vallone & Donaldson, 2001; Grzywacz & Bass, 2003). More specifically, work-family conflict appears to be a stressor faced by many people nowadays in their struggle to balance work and family life. Social support has been found helpful in reducing or managing stress associated with combining work and family life (Carlson & Perrewé, 1999; Greenhaus & Parasuraman, 1994). Although there is agreement on the beneficial effects of social support, the precise role of social support in the stressor-strain relationship remains unclear. Building on previous research concerning social support and work-family conflict, the present study examines the relationship between social support, work-family conflict, and well-being by testing the stress-buffering, direct and indirect effect of social support in relation to work-family conflict and well-being.

Work-family conflict is defined as "a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" (Greenhaus & Beutell, 1985, p. 77), and is supposed to be bi-directional (Adams, King, & King, 1996; Frone, Russell, & Cooper, 1992). That is, work can interfere with family (Work-to-Family Conflict; WFC) and family can interfere with work (Family-to-Work Conflict; FWC) (Allen et al., 2000). When no distinction in the direction of conflict is made, it is refered to as work-family conflict.

Work-family conflict has been associated with various detrimental effects, affecting both the individual and organization (Duxbury & Higgins, 1991; Kossek & Ozeki, 1998). According to Allen et al., (2000), these negative consequences of work-family conflict can be organized into three categories; work related consequences (i.e., job satisfaction, organizational commitment, turnover intention, and job performance), non-work related outcomes (i.e., marital satisfaction, and satisfaction with family and leisure time), and stress related outcomes (i.e., burnout, depression, and physical complaints). Although work-family conflict can have serious consequences in all three categories (Allen et al., 2000), the most consistent and strong relationships are found between work-family conflict and stress related outcomes.

Social support is believed to be an effective resource to cope with stress, and hence to promote individual well-being (Kaufmann & Beehr, 1989; Sarason, Sarason, & Pierce, 1990). However, it remains unclear how social support acts to promote one's well-being. That is, previous research findings regarding the underlying mechanisms of social support in the stressor-strain relationship are inconclusive (Beehr, Farmer, Glazer, Gudanowski, & Nadig-Nair, 2003; Ganster, Mayes, & Fusilier, 1986; Kaufmann & Beehr, 1986).

Different models have been developed to explain the effect of social support in the stressor-strain relationship. Research has mainly focused on two models; the stress-buffering

and the direct-effect model (e.g., Beehr & McGrath, 1992; Cohen & Wills, 1985; Frone, Russell, & Cooper, 1995; Parasuraman, Greenhaus, & Granrose, 1992; Suchet & Barling, 1986; Vaux, 1988; Viswesvaran, Sanchez, & Fisher, 1999). The stress-buffering model implies that social support moderates the relationship between stressor and strains, whereas the direct-effect model implies a direct relation between social support and strain independent of the stressor. Although most research on the direct-effect model concerned the relationship between social support and strain (Viswesvaran et al., 1999), social support can also have a direct effect on the stressor of the stressor-strain relationship. In this case social support has a preventive or indirect effect on strain (Beehr & McGrath, 1992).

Questioning the role or underlying mechanism of social support in the stressor-strain relationship is far from new. However, to our knowledge, up to now, only Carlson and Perrewé (1999), have investigated different models of social support in relation to work-family conflict. In this study, they found most support for the model representing an indirect effect of social support on work-family conflict, through role conflict, time demands and role ambiguity. In a more comprehensive model, including job and family satisfaction, they found that social support was both indirectly and directly related to job and family satisfaction as well.

In the present study, we attempt to clarify the conceptualization of social support in relation to work-family conflict and well-being. Accordingly, the three models described above are examined, with work-family conflict being the stressor and well-being the indicator of strain. In addition to testing these three models, we explored whether there are any gender differences with respect to the relationship between social support, work-family conflict and well-being.

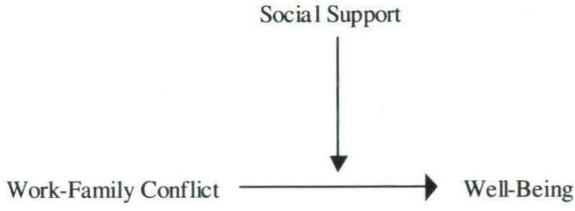
Models of social support in relation to work-family conflict and well-being

Figure 1 represents the stress-buffering, direct and indirect effect models of social support in relation to work-family conflict and well-being. Model A represents the stress-buffering effect of social support. Generally, the stress-buffering model assumes that social support has a 'buffering' or moderating effect during stressful life events (Beehr & McGrath, 1992; House, 1981; Vaux, 1988; Viswesvaran et al., 1999). When someone experiences high stress, social support buffers the negative impact that stress would otherwise have had on one's well-being. That is, social support functions as a moderator on the relationship between stressors and strain in such a way that persons with low levels of support experience stronger stressor-strain relations than persons with high levels of support (Cohen & Wills, 1985; Ganster et al., 1986; Kaufmann & Beehr, 1986). This model assumes that social support is only effective under high stress conditions. Under low stress conditions, there is little difference in well-being between those who receive social support and those who don't (Hobfoll, 1995).

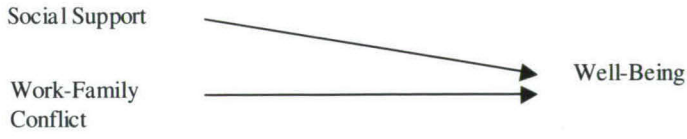
In our case, the stress buffering model presents social support as a moderator between work-family conflict and well-being. The hypothesis tested in this model is that work-family conflict and social support interact to affect one's well-being such that high levels of social support and low levels of work-family conflict lead to better well-being.

Model B represents the direct-effect model in relation to work-family conflict and well-being. Generally, in the direct-effect model, social support and stressors are supposed to act independently from one another. That is, an increase in social support will result in an increase in well-being regardless of the intensity of the existing stressors (Cohen & Wills, 1985; Kaufmann & Beehr, 1989). Hence, social support can be beneficial whether or not someone is experiencing stressful life events (Hobfoll, 1995). So, in our model, social support is assumed to be related positively to well-being, irrespective of the experienced level of work-family conflict. The stressor, work-family conflict, is expected to be related negatively to well-being in this model.

A: Stress-buffering model



B: Direct effect model



C: Indirect effect model

Figure 1. Stress-buffering, direct and indirect effect models of social support

Model C represents the indirect-effect model. According to the indirect-effect model (Beehr & McGrath, 1992; House, 1981; Viswesvaran et al., 1999) social support indirectly effects one's well-being by reducing the strength of the stressor. When someone receives social support the intensity of the stressor will decline, weakening the negative effect that the stressor would otherwise have had.

In relation to work-family conflict and well-being, social support is expected to be related indirectly to well-being through work-family conflict. In other words, social support has a direct effect on work-family conflict, and work-family conflict in turn has a direct effect on well-being. According to this model we expect that social support and work-family conflict are negatively related, and that work-family conflict and well-being are negatively related as well. Therefore, someone who receives social support will experience less work-family conflict, which in turn will enhance his or her well-being.

Gender, work-family conflict and social support

Nowadays, most men and women combine work and family life and are therefore vulnerable to experience work-family conflict. Previous research showed that both men and women indeed experience work-family conflict (Duxbury & Higgins, 2001; Galinsky & Bond, 1998). However, findings regarding gender differences in this respect are mixed.

Earlier studies mostly reported no gender differences with regard to the direction and level of work-family conflict (Bedeian, Burke, & Moffett, 1988; Duxbury & Higgins, 1991; Frone & Rice, 1987; Voydanoff, 1988). More recent studies that did find gender differences, reported that women experience more conflict than men (Frone et al., 1992; Hammer, Allen, & Grigsby, 1997; Williams & Alliger, 1994). Furthermore, most studies that distinguished between the two directions of work-family conflict, i.e. work-to-family conflict (WFC) and family-to-work conflict (FWC), supported the existence of gender differences in work-family conflict. For example, Cinamon and Rich (2002) and Duxbury, Higgins and Lee (1994), found women to report more WFC than men. Williams and Alliger (1994) found women to report both more WFC and FWC than men, and Behson (2002), found women to report more FWC than men.

With respect to social support, previous studies found that men and women differed with respect to the sources from which they receive social support. In general, a distinction is made between work-related and non-work related sources of support (Adams et al., 1996; King, Mattimore, King, & Adams, 1995). Women generally receive more social support from relatives and friends (Joplin, Nelson, & Quick, 1999; Ogus, Greenglass, & Burke, 1990; Olson & Shultz, 1994; Wohlgemuth & Betz, 1991), whereas men generally receive more support from their spouse (Reevy & Maslach, 2001; Vaux, 1985).

With regard to social support from the work domain, men are generally assumed to receive more social support from this domain. However, research findings did not support this assumption. That is, some studies found no gender differences at all (Fusilier, Ganster, &

Mayes, 1986; Geller & Hobfoll, 1994), whereas others found women to receive more social support from work-related support sources than men (Roxburgh, 1999). Despite these gender differences in work-family conflict and social support, both are associated with individual well-being. That is, social support may be beneficial, whereas on the other hand, work-family conflict may be harmful to one's well-being. So far, previous studies examined the gender differences in the effect of received social support in relation to various measures of well-being. However, to our knowledge, never tested whether different social support mechanisms (direct, indirect and stress-buffering effect) are effective for men and women. Hence, in the present study, we explore whether men and women differ with respect to the mechanisms of social support in relation to general well-being.

METHOD

Sample and procedure

The data used in this study were part of a large research project on work-family conflict, social support and well-being. Although there may be some overlap in respondents, the other studies report on a subsample of the sample used in the present study. Data were collected from a panel through a computer survey in their homes. This so-called telepanel; the CentERpanel, consists of about 2000 Dutch households. Members of this panel are requested to fill out a questionnaire every week (through the internet) on various topics. To be a member of the panel, one does not need to have a personal computer with access to the internet. A household without internet access is supplied with a so-called "set-top box" with which questionnaires can be filled out using a television screen as a monitor. Participants receive a small compensation for being member of the panel.

For the present study, only those members of the panel who were employed and were living together (married or co-habiting) at the time of the survey were selected to fill out the questionnaire (n=1171). After a reminder, a total of 962 questionnaires was returned (response rate 82%). If two or more panel members of the same household returned the questionnaire, the data of only one of these respondents was used in the present study, in order to ensure that the data would not be biased by characteristics of the couple. So, if two or more panel members of the same household returned the questionnaire we randomly removed equal numbers of male and female respondents from the sample. Finally, respondents who failed to respond to large parts of the questionnaire (i.e., the outcome variables) were removed from the sample, resulting in a final sample of 611 questionnaires.

Of the 611 respondents, 33% were women and 67% were men. The mean age for women was 39 and for men 44 years. Sixty-five percent of the respondents had one or more children living at home. On average respondents worked 37 hours per week (women worked fewer hours per week than men, 29 and 41 hours per week respectively). Most respondents

(56%) completed some form of (higher) vocational education. There were no gender differences in this respect.

Measures

Well-being

Well-being was measured with three scales of the Health Monitor, a Dutch questionnaire developed by van Heck and Vingerhoets (2001); the Health State Scale, Psychological Well-Being Scale and the Life Satisfaction Scale.

The 8-item Health State Scale measures one's general health state, and refers to performing, or being able to perform, bodily, social and work activities that are normal for healthy individuals (van Heck & Vingerhoets, 2001). Two sample items are: "To what extent did your physical health or emotional problems hinder you in your daily activities, such as walking, climbing stairs, get yourself dressed, taking a bath, going to the bathroom?" and "Were you physically tired for several days in succession last month?" The response categories varied from (1) "not at all" to (5) "a great deal", or (1) "not at all true" to (5) "totally true", or (1) "never" to (5) "always". Responses were reversed such that high scores indicate good general health. Cronbach's alpha for this scale was .87.

The Psychological Well-Being Scale, measures one's subjective well-being and consists of 5 items (van Heck & Vingerhoets, 2001). For each item, respondents could indicate how they felt during the last month. Two sample items are: "Last month…..I had difficulties taking decisions", and "Last month…..I enjoyed my daily activities". Responses to negative formulated items were reversed such that higher scores reflect higher levels of psychological well-being. Cronbach's alpha for this scale was .81.

The 5-item Life Satisfaction scale measures one's possibilities to satisfy one's needs, wishes and desires, and to participate in activities that lead to personal growth and development (van Heck & Vingerhoets, 2001). Two sample items are: "To what extent are you satisfied with the circumstances you live in?" and "To what extent are you satisfied with your personal relationships. Response categories were (1) "not that satisfied" to (5) "extremely satisfied", or, (1) "not at all" to (5) "very". The Cronbach alpha for this scale was .78.

Work-family conflict

Work-family conflict was measured with the 5-item Work-to-Family Conflict (WFC) Scale and the 5-item Family-to-Work Conflict (FWC) Scale developed by Netemeyer, Boles and McMurrian (1996). The original scales of Netemeyer, Boles and McMurrian (1996) were translated into Dutch using standard procedures (including back-translation into English). Sample items of the WFC scale are "Things I want to do at home do not get done because of the demands my job puts on me" and "My job produces strain that makes it difficult to fulfill

family duties". Sample items of the FWC scale are "I have to put off things at work because of demands on my time at home" and "Family-related strain interferes with my ability to perform job-related duties". For the WFC and FWC scales response options ranged from (1) "strongly disagree" to (5) "strongly agree". The Cronbach alpha for the WFC scale for this sample was .87 and for the FWC scale .91.

Social support

To measure social support from the work and home domain four scales were used, each scale representing a different source of support. Social support from one's spouse and social support from colleagues were measured by two 8-item scales developed by Parasuraman, Greenhaus and Granrose (1992). Both scales contain the four types of support as conceptualized by House (1981): emotional, instrumental, appraisal and informational support. The original scales of Parasuraman et al. (1992) were translated into Dutch using standard procedures (including back-translation into English). For the present study two additional scales, measuring social support from one's relatives and friends, and social support from one's supervisor, were added. Sample items are: "To what extent is/are your [...spouse/relatives/friends/colleagues/supervisor...] willing to listen to your problems?", "To what extent is/are your [...] concerned about your welfare?", "To what extent do/does your [...] provide you with information you need to do the things you want to do?" and "To what extent do/does your [...] praise you for your accomplishments?" Response categories were (1) "not at all" to (5) "a great deal". The Cronbach alpha for social support from one's spouse was .86, from one's relatives and friends .87, from colleagues .90 and for social support from one's supervisor .94.

Data analysis

Prior to testing the three social support mechanisms, analyses of variance were performed to test for gender differences on the variables in the model. Structural Equation Modeling was used to test and compare the three theoretical models. To test the stress-buffering, direct and indirect-effect of social support, three models, each representing one of these mechanisms, we used LISREL 8.54 (Jöreskog & Sörbom, 1996). Social support, work-family-conflict and well-being were represented by latent variables and as recommended, measured with multiple indicators (Kline, 1998). In all analyses, the covariance matrix was analyzed, using the maximum likelihood method.

The model representing the stress-buffering effect was tested using the Jaccard and Wan (1995; 1996) approach. To test for statistical interaction, first, all possible product terms between the various social support and the two WFC indicators were formed. As the approach of Jaccard and Wan (1995) assumes mean centering, raw scores were centered to the mean before the product terms were formed and formal analysis were executed. Second, the product terms were used as indicators of the latent product variable representing the interaction

between social support and work-family-conflict. Third, we used the standard LISREL programming strategy to estimate the different parameters. To define the scale of the latent variable, the path from each latent variable to its first indicator was fixed at 1. Also in the models representing the direct and indirect effect the scale of the latent variable was defined by fixing the path from each latent variable to its first indicator at 1.

After testing the three models for the whole sample, both within and between-group analyses were performed to test for gender differences (cf. Frone et al., 1992). Firstly, to test the fit of the models in each group, the fit indices (decribed below) were computed separately for men and women. Secondly, to examine whether the regression coefficients in the structural model differed between the two groups, multiple group analyses were performed. Two between-group models were specified and tested. In the first analysis, we allowed the regression coefficients to vary between the two groups, i.e., all parameter estimates in the model were estimated freely within the two groups. In the second analyses we assumed that there were no differences between the groups. That is, the regression coefficients in the structural model were identical. To evaluate the differences between the two groups we used the χ^2 difference test. If the χ^2 for the first model is significantly larger than for the second, the assumption of invariance between the groups is not tenable (cf. Frone et al., 1992).

To evaluate the overall fit of the models, we used the following goodness-of-fit statistics: the chi-square (χ^2) with its degrees of freedom and significance level, the comparative fit index (CFI), the standardized root mean squared residual (SRMR), the root mean squared error of approximation (RMSEA), and the consistent Akaike informational criterion (CAIC).

The chi-square (χ^2) indicates to what extent the covariance matrix estimated by the hypothesized model reproduces the observed covariance matrix (James, Mulaik, & Brett, 1982; Kelloway, 1998). A disadvantage of this measure is its dependency on the size of the sample, i.e., large data sets are likely to produce significant chi-squares as even miniscule differences may be noticed as being more than mere sampling fluctuations and hence significant. Therefore we also provide the χ^2 to degrees of freedom ratio (χ^2 /df). Despite the lack of a concrete guideline about what value of χ^2/df is acceptable, it is frequently suggested that this value should be less than 3 (Kline, 1998). The other fit-statistics used in this study are less dependent on sample size.

The CFI indicates the proportion of improvement in fit over the baseline independence model, and is based on the noncentral chi-square distribution with noncentrality parameters (Tabachnick & Fidell, 2001). For the CFI values above .95 are indicative of good model fit (Hu & Bentler, 1999).

The SRMR and the RMSEA are based on the analysis of residuals. The SRMR, represents the standardized summary of the average covariance residuals and ranges from 0 – 1. Values below .08 indicating a good model fit (Hu & Bentler, 1999). The RMSEA estimates the lack of fit in a model compared to the saturated model (Tabachnick & Fidell, 2001).

RMSEA values of .05 and below indicate very good fit, whereas values between .05 and .08 indicate good fit, and values between .08 and .10 mediocre fit (MacCallum, Browne & Sugawara, 1996), values above .10 are indicative of poor model fit (Brown & Cudeck, 1993).

Finally, as our models are not nested we use the CAIC to compare the models. The CAIC takes both the fit of the model, the number of estimated parameters and the sample size into account. Smaller CAIC values indicate a more parsimonious model. The interpretation of this measure is solely based on comparing competing models as there is no index or guideline to indicate what "small" means (Kelloway, 1998).

RESULTS

Descriptive statistics

The means, standard deviations and correlations of the variables used in the analyses regarding the total sample are displayed in Table 1. The means, standard deviations and correlation of the variables used in the multiple group analyses are displayed in Table 2. Prior to testing the three models, analyses of variance were performed to test for gender differences on the variables in the model. With regard to the sources of social support, women reported more social support from relatives and friends, $F(1, 609) = 12.25$, $p < .01$ and more social support from colleagues than men, $F(1, 609) = 7.79$, $p < .01$. Men reported better general health $F(1, 609) = 19{,}23$, $p < .01$ and better psychological well-being $F(1, 609) = 21{,}77$, $p < .01$ than women, whereas women reported being more satisfied with their life $F(1, 609) = 5.64$, $p < .05$ than men. There were no gender differences with respect to the two work-family conflict variables.

Table 1. Means, standard deviations and correlations among study variables of the total sample

	Variables	Mean	SD	1	2	3	4	5	6	7	8	9
1	Social Support from Spouse	3.68	0.72	-								
2	Social Support from Relatives & Friends	2.70	0.74	.35**	-							
3	Social Support from Colleagues	3.18	0.73	.22**	.33**	-						
4	Social Support from Supervisor	3.07	0.90	.16**	.28**	.56**	-					
5	Work-to-Family Conflict	2.23	0.80	-.14**	-.09*	-.22**	-.17**	-				
6	Family-to-Work Conflict	1.82	0.69	-.20**	-.06	-.17**	-.11**	.65**	-			
7	General Health	4.21	0.63	.02	-.00	.10*	.10**	-.19**	-.20**	-		
8	Psychological Well-Being	4.23	0.58	.17**	-.02	.16**	.15**	-.31**	-.28**	.51**	-	
9	Life Satisfaction	3.77	0.59	.36**	.24**	.28**	.18**	-.28**	-.27**	.21**	.41**	-

Note: $N = 611$, *p<.05; **p<.01 (two-tailed).

Table 2. Means, standard deviations and correlations among study variables for men and women separately

		Men *(n = 408)*		Women *(n = 203)*								
	Variables	Mean	SD	Mean	SD	1	2	3	4	5	6	7	8	9
1	Social Support from Spouse	3.72	0.67	3.61	0.81	-	.39**	.24**	.10	-.16*	-.20**	-.04	.11	.35**
2	Social Support from Relatives & Friends	2.63	0.69	2.85‡	0.82	.34**	-	.38**	.31**	-.18**	-.14*	.06	.06	.30**
3	Social Support from Colleagues	3.12	0.68	3.30‡	0.79	.22**	.28**	-	.55**	-.26**	-.16*	.21**	.17*	.23**
4	Social Support from Supervisor	3.07	0.87	3.06	0.95	.20**	.26**	.58**	-	-.22**	-.13	.16*	.19*	.14
5	Work-to-Family Conflict	2.26	0.82	2.17	0.75	-.13**	-.03	-.19**	-.15**	-	.62**	-.26**	-.27**	-.21**
6	Family-to-Work Conflict	1.83	0.69	1.81	0.69	-.20**	-.01	-.17**	-.10*	.66**	-	-.21**	-.23**	-.20**
7	General Health	4.29	0.59	4.06‡	0.68	.04	.00	.06	.08	-.17**	-.32**	-	.51**	.22**
8	Psychological Well-Being	4.30	0.55	4.08‡	0.60	.19**	-.02	.19**	.12**	-.36**	-.32**	.48**	-	.35**
9	Life Satisfaction	3.73	0.58	3.85†	0.60	.38**	.19**	.30**	.21**	-.32**	-.30**	.24**	.48**	-

Note: *p < .05; **p < .01 (two-tailed). Correlations displayed above the diagonal are correlations for women, below for men. Differences in means for male and female respondents that are statistically significant are marked with †p < .05, and ‡p < .01

Test of the stress-buffering, direct and indirect effect for the total sample

Model fit

Table 3 displays the fit statistics of the direct and indirect-effect model. No support was found for the stress-buffering effect, i.e., the latent product variable representing the interaction effect between social support and work-family conflict was not significantly related to well-being. Hence, the fit statistics of the stress-buffering model are not displayed. Although the χ^2 was significant for both the direct and indirect-effect model, the other fit indices all indicate a good to moderate model fit. The SRMR for both models was below .08, indicating good model fit. Also, the CFI was above the required .95 cutoff point, indicating good fit as well. The RMSEA showed at least mediocre fit for both models. Taken together, the fit indices suggest that the direct and indirect-effect model fit the data reasonably well. The CAIC suggests that the direct-effect model fits the data better than the indirect-effect model.

Table 3. Goodness of Fit Statistics for the total sample

Models	X^2	*df*	*P*	χ^2/df	*CAIC*	*RMSEA*	*CFI*	*SRMR*
Direct effect	92.87	21	P = 0.00	4.42	271.09	0.075	0.95	0.053
Indirect effect	134.84	22	P = 0.00	6.13	296.26	0.088	0.93	0.074

Note: the fit statistics of the stress-buffering model are not displayed, as we didn't find any support for moderation (i.e., the path from the latent product term work-family conflict to the latent variable well-being was not significant).

Relationships within the model

With respect to the stress-buffering effect, the latent product variable representing the interaction effect between social support and work-family conflict was not significantly related to well-being (ß = .05, *ns*), indicating that in our sample social support does not act as a moderator in the relationship between work-family conflict and well-being. In both the direct and indirect-effect models, relationships were as expected. That is, in the direct-effect model social support was related positively to well-being (ß = .56, p< .01) and work-family conflict was related negatively to well-being (ß = -.28 p<.01). In the indirect-effect model, social support was related negatively to work-family conflict (ß = -.36, p< .01), and work-family conflict in turn was related negatively to well-being (ß = -.58, p< .01).

Comparison of the models across gender

To examine whether the results based on the full sample differed across gender, a series of within and between-group analyses was specified. Within-group analyses were used to test the fit of the models for each group. Between-group analyses were used to examine whether the structural relations of the models differed across gender. Results of these analyses are

displayed in Table 4. As we, again found no support for the stress-buffering effect, the within-group fit statistics of this model are not displayed.

Within-group analyses

The within-group fit statistics for the direct-effect model showed that this model fits the data reasonably well for both men and women. Although the χ^2 was significant, the other fit indices all indicate a good model fit. The CAIC values indicate that the direct-effect model is more parsimonious for women, indicating that the direct-effect model fits the data better for women than for men.

For the indirect-effect model, the within-group fit statistics were less promising. The the χ^2 was significant, and the other fit indices also showed a poor or moderate model fit for both men and women. Comparing the direct and indirect-effect models per sex, the same pattern was found: the direct-effect model showed a better fit to the data than the indirect-effect model among women, as well as among men.

Relationships within the models

With respect to the stress-buffering model, again, the latent product variable representing the interaction effect between social support and work-family conflict was not significantly related to well-being in both groups (ß = .02, *ns* for men and ß = .04, *ns* for women), indicating that the relationship between work-family conflict and well-being is not moderated by social support for both men and women.

For men, results for the direct-effect model were as expected; social support was related positively to well-being (ß = .61, p<.01), whereas work-family conflict showed a negative relationship with well-being (ß = -.30, p<.01). For women, the relationship between social support and well-being was as expected; social support was related positively to well-being (ß = .53, p<.01). Surprisingly, the relationship between work-family conflict and well-being was not significant for women, indicating that women's well-being is not negatively affected by work-family conflict (ß = -.23, *ns*.).

Regarding the indirect-effect model structural relations were as expected for men and women. Social support was related negatively to work-family conflict (ß = -.34, p< .01, for men and ß = -.44, p<.01, for women), and work-family conflict was related negatively to well-being (ß = -.59, p< .01, for men and ß = -.53, p< .01, for women).

Between-group analyses

The within-group analysis showed that the indirect-effect model had a poor to moderate fit to the data. Because it is unlikely to find multiple group models with a good fit, given that the single group models do not fit the data well (Tabachnick & Fidell, 2001), we only ran multiple group analyses for the direct-effect model.

Table 4. Goodness of Fit Statistics for within and between-group comparison

Models	χ^2	*Df*	*P*	χ^2/df	*CAIC*	*RMSEA*	*CFI*	*SRMR*
Within-group								
Direct effect								
Men (n = 408)	63.57	21	P = 0.00	3.03	230.85	0.07	0.96	0.05
Women (n = 203)	41.60	21	P = 0.01	1.98	194.22	0.07	0.96	0.06
Indirect effect								
Men	99.14	22	P = 0.00	4.72	251.65	0.09	0.93	0.08
Women	51.90	22	P = 0.00	2.36	194.99	0.08	0.94	0.08
Between-group								
Unconstrained model	159.86	64	P = 0.00	2.50	362.17	0.07	0.94	
Constrained model	162.21	66	P = 0.00	2.46	350.27	0.07	0.94	
χ^2diffference test (constrained – unconstrained)	2.35	2	*ns*					

The chi-square values of the unconstrained and constrained between-group analyses are displayed in Table 4. The chi-square difference test was not significant, $\chi^2_{(2)} = 2.35$, *ns*, indicating that there are no gender differences with regard to the relationships in the direct-effect model. The fit statistics of the unconstrained and constrained models also were identical, supporting the lack of gender differences. Thus, we conclude that the direct-effect model generalizes across men and women.

DISCUSSION

The present study examined the relationship between social support, work-family conflict and well-being by testing three theoretical models, representing: (a) the stress-buffering, (b) the direct and (c) the indirect-effect of social support in relation to employee well-being, with work-family conflict being the stressor in each model. In addition to testing these three models for the total sample, we explored whether the models are different across gender.

Strongest support was found for the direct-effect model, i.e., the model representing a positive relationship between social support and well-being independent from the experienced level of work-family conflict. Although to our knowledge this study is the first that examines the relation between social support and well-being with work-family conflict being the stressor, our findings are in accordance with previous research on the stress-buffering and direct-effect of social support (Brotheridge, 2001; Viswesvaran et al., 1999). However, our findings are not in line with the study of Carlson and Perrewé (1999) regarding the relationship between social support and work-family conflict. This may be related to the fact that in our study work-family conflict was treated as the stressor, while in the study of Carlson and Perrewé (1999) work-family conflict was treated either as the outcome variable or mediating variable.

For both the direct and indirect-effect model, the relationships between variables were as expected. This was not the case for the stress-buffering model. In this model, the expected moderating effect of social support on the relationship between work-family conflict and well-being was not supported, as the latent product variable, representing the interaction effect between social support and work-family conflict, was not significantly related to well-being. This might be explained by the intensity of the stressor. That is, the stress-buffering model assumes that social support is only effective under high stress conditions (Hobfoll, 1995; House, 1981), while respondents in our sample reported rather low levels of experienced work-family conflict (M = 2.23 for WFC and M = 1.82 for FWC respectively, on a five-point scale ranging from strongly 1 to 5).

Another explanation may be that the relationship between social support and the work-family conflict – well-being relationship is nonlinear. In our model we used a latent product term, the form of this latent product term was linear, thus we were not able to identify moderating relationships other than this linear one. To gain more insight in the

moderating role of social support in relation to work-family conflict and well-being, future research should examine both linear and nonlinear moderated relationships.

The matching hypothesis, stating that stress-buffering effects are only found when there is a match between the needs caused by the stressor and the right kind of social support from the right source of social support (Viswesvaran et al., 1999; Wheaton, 1985), may provide another explanation why we did not find buffer effects. The social support scale that we used in the present study measured four types of social support, i.e., emotional, practical, informational and appraisal, from four different sources, i.e., colleagues, supervisor, spouse and relatives and friends. However, we did not distinguish between the types of support or match the sources of support to the observed work-family conflict variables, as the main purpose of the study was on model comparison. To determine which type of support is needed from whom in order to reduce work-family conflict, future research should distinguish between different types and sources of social support, and investigate how these are related to the different directions and types of work-family conflict. Moreover, besides the fact that the main purpose of our study was on model comparison, our social support scales were designed to measure general support from different sources. Therefore, we were not able to make a distinction between sources as well as types of social support, as this would have lead to unreliable (two-item) scales.

The results of the within-group analyses revealed the same conclusions as the analyses for the total sample: the direct-effect model showed a better fit to the data than the indirect-effect model both for men and women, and again no evidence was found for the stress-buffering model. The direct-effect model showed a better fit to the data among women than among men. For men the relationships in the direct-effect model were as expected, for women the work-family conflict was not significantly related to well-being. Which at first glance seems surprising, however a closer look at the data revealed that most women worked part-time (80% of the women in our sample worked less than 38 hours per week). Of these part-time employed women, 72% indicated that they worked part-time to combine work and family responsibilities. Based on these results it appears that work-family conflict is not related to these women's well-being, probably because they work part-time, which enables them to combine their work and family responsibilities in such a way that it does not impair their well-being.

The between-group analyses indicated that there were no gender differences with respect to the hypothesized relationships in the direct-effect model, indicating that social support and work-family conflict act independent of each other for men and women. Thus, regardless of the experienced level of work-family conflict, social support enhances both men and women's well-being.

Strengths and limitations of the study

There is ample evidence that social support is an effective resource to cope with stress. However, empirical research that examines the role of social support in the context of work-family conflict and employee well-being is scarce. Our study represents one of the first attempts to examine the underlying mechanism of social support in relation to work-family conflict and well-being. Three models were tested; the stress-buffering and direct-effect model, which both are examined extensively in previous research; as well as the indirect-effect model, which has received less attention until now. Moreover, in order to estimate social support in the models, various social support sources stemming from both the work and home domains, were included in the present study. In addition, both directions of work-family conflict were included. The fact that the social support measure used in this study measured four types of support, i.e., emotional, practical, appraisal and informational support, may also be considered a strength.

Despite these advantages, our study has several limitations that are important to note. First, as our data were cross-sectional it is not possible to draw any causal conclusions based on findings of the present study. The direction of the relationships in the three models can only be determined theoretically. Therefore, in future research, it would be preferable to study the relationship between social support, work-family conflict and well-being longitudinally. However, it should be noted that, in longitudinal research, the causal order of variables also cannot be definitely determined, as there will always be other variables than the variables included in the study, which may account for the found relationships. Second, we only used subjective or self-report data, which may lead to data contamination due to common method variance. However, several studies have shown common method variance not to be as problematic as once thought (Semmer, Zapf, & Greif, 1996; Spector, 1992). Third, the study may suffer from some self-selection bias, that is, people who experience high levels of work-family conflict may be less likely to volunteer to take part in the tele-panel. This may have led to less variance in the variables used in this study. Finally, our data are from a Dutch population and may not be entirely generalizable to other countries. Especially, as working part-time is very common among women in the Netherlands (SCP, 2006).

In conclusion, the current study provides new insights regarding the effects of social support on employee well-being in relation to work-family conflict, as well as on gender differences in this respect. In addition to previous research, which mainly focused on the differences between the stress-buffering and the direct-effect of social support on health and well-being, the present study compares the stress-buffering with the direct and indirect-effect of social support on well-being. Our findings indicate a better fit for the direct-effect model of social support in general, as well as for men and women separately.

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Chapter 3

Sources of Social Support as Predictors of Health, Psychological Well-Being and Life Satisfaction among Dutch Male and Female Dual-Earners*

ABSTRACT

We examined whether gender differences in health, psychological well-being, and life satisfaction, can be explained by effects of work-related and non-work related sources of social support. The sample consisted of 450 men and women from dual-earner families. Men report better health and psychological well-being than women, whereas women report higher life satisfaction than men. Contrary to our expectations, women receive more social support from colleagues than men, while men and women equally receive support from their supervisor. As for the non-work related sources of social support, men receive more social support from their spouse, while women receive more social support from relatives and friends. Although men and women differ with respect to the social support they receive from different sources, gender differences only existed regarding the relationship between social support from colleagues and health. That is, men did not benefit from social support from colleagues, whereas women did. No gender differences were found for the other sources of support. Thus, generally, the differences in social support cannot explain gender differences in health, psychological well-being and life satisfaction.

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INTRODUCTION

The present study builds on and extends prior research on the beneficial effect of social support on health, well-being and life satisfaction. In particular, it focuses on the importance of different sources of social support for working men and women. Previous research showed that social support plays an important role in promoting health and well-being (Kaufmann & Beehr, 1989; Sarason, Sarason, & Pierce, 1990).

Social support can originate from different sources. Generally a distinction is made between work and non-work related sources of social support (King, Mattimore, King & Adams, 1995; Adams, King, & King, 1996). Work-related sources of social support refer to social support from supervisor and coworkers. Non-work related sources refer to extra-organizational sources, such as spouse, family, relatives, and friends. With the increase of women's labor force participation, more women can receive social support from work-related and non-work related sources.

Nevertheless, working women in the Netherlands and other European countries, report more health complaints than men, particularly stress-related illness and fatigue (LISV, 2001; Paoli & Merllié, 2001). Moreover, working women are more likely to report absences (Paoli & Merllié, 2001), and in the Netherlands they even make up the fastest growing medical category of people pronounced unfit for work (LISV, 2001). This raises the question why working (Dutch) women report more health complaints than working men and why working women more frequently become incapacitated for work than men. Women may report more health complaints because they experience less social support or social support from different sources than men.

Another explanation for the gender differences in health has to do with combining multiple roles. Most dual-earners combine multiple roles, however, women more frequently do so as they continue to be responsible for domestic and childcare activities regardless of their employment status (Gjerdingen, McGovern, Bekker, Lundberg, & Willemsen, 2000; Lennon, 1994). However, research exploring the effects of combining multiple roles on health and well-being has shown inconclusive results (Gutek, Repetti, & Silver, 1988; Lambert, 1990), as it focused largely on within-sex differences among women (Barnett & Marshall, 1992; Kinnunen, Vermulst, Gerris, & Mäkikangas, 2003), paid less attention to men (Barnett, Marshall, & Pleck, 1992; Gove & Zeiss, 1987) and seldom compared working men with working women (Nordenmark, 2002). Therefore, we do not know whether having multiple roles differently affects men and women. In the present study, we compare working women with working men and try to explain the expected differences in health and well-being between working men and women through differences in sources of social support and the effect of social support on their health and well-being. Hence we hypothesize as follows:

Hypothesis 1: Working men will report better health (a), psychological well-being (b) and higher life satisfaction (c) than working women.

Social Support

Social support can be best defined as a complex transactional process in which an active interplay between a person and his or her support network is involved (Vaux, 1988). It includes providing empathy, care, love and trust (emotional support), actual aid in time, money and energy (instrumental support), evaluative feedback (appraisal support), and information, advice and suggestions (informational support) (House, 1981).

Although results on the mechanisms through which social support influences health and well-being are inconclusive (Ganster, Fusilier, & Mayes, 1986; Gore, 1981; House, 1981; Kaufmann & Beehr, 1986; Kessler, Price, & Wortman, 1985; Leavy, 1983; Thoits, 1982), social support is supposed to have a positive effect on one's health and well-being (Kaufmann & Beehr, 1989; Sarason, Sarason, & Pierce, 1990).

One can receive social support from various sources from different life domains, i.e., work-related and non-work related sources of social support. In general, women report more support from relatives and friends and rely less heavily on social support from their spouse than men (Belle, 1987; Ogus, Greenglass, & Burke, 1990; Olsen & Shultz, 1994; Vaux, 1985). Men report more support from their spouse (Reevy & Maslach, 2001). Taylor et al. (2000) supposed that these gender differences in social support are a consequence of the different responses to stress situations by men and women. They state that men are more likely to fight-or-flight in stress situations, whereas women are more likely to tend-and-befriend, i.e. "...in response to stress situations, women show patterns involving caring for offspring, joining social groups to reduce vulnerability, and contributing to the development of social groupings, especially those involving female networks, for the exchange of resources and responsibilities" (Taylor, et al., 2000, pp 421-422).

With regard to support from work-related sources, results are inconclusive. Various studies argue that employed men mostly rely on work-related sources of support, whereas employed women rely on family or non-work related sources (Baruch, Biener, & Barnett 1987; Etzion; 1984, Leavy; 1983). However, other studies report different or even opposite results. For instance, a study by Fusilier, Ganster and Mayes (1986), showed that support from family and friends was virtually unrelated to life-satisfaction for women, but showed a positive relationship for men. Similarly, support from family and friends was unrelated to depression in women, but was negatively related to depression in men.

Although women's labor force participation has increased, in the Netherlands most working women spend fewer hours per week on the job than working men (SCP, 2002). Working women, therefore, may have fewer opportunities to invest in social relationships at work and may as a consequence receive less social support from these relationships at work. As research findings on gender differences regarding social support received from work-

related sources are inconclusive, we assume that gender differences regarding the number of hours men and women are engaged in work are related to gender differences in work-related sources of social support. Because women work on average fewer hours than men on the job (SCP, 2002) we expect that men receive more social support from work-related sources (supervisor and colleagues) than women. We hypothesize as follows:

Hypothesis 2a: Working men will report more social support from supervisor than working women

Hypothesis 2b: Working men will report more social support from colleagues than working women.

With regard to the gender differences in social support from non-work related sources, we again hold time engaged in work responsible. That is, men are able to receive more support from their spouse as women work fewer hours on the job than men. Since most working women work fewer hours on the job than their spouse, generally, they spend more time on domestic activities such as housekeeping and childcare. Domestic activities can be interpreted as a practical form of social support. Men, on the contrary, generally spend more time working on the job, and have less time to provide their spouse with support. We hypothesize as follows:

Hypothesis 3a: Working men will report more social support from their spouse than working women.

Hypothesis 3b: Working women will report more social support from their relatives and friends than working men.

Findings of previous research have shown that social support has a beneficial effect for both men and women (House, 1981; Leavy, 1983). Therefore, we expect that the different sources of support will have the same effect for men and women. Accordingly, we hypothesize as follows:

Hypothesis 4: Social support from supervisor, colleagues, spouse, and relatives and friends will have a positive effect on working men's and women's health (a), psychological well-being (b) and life satisfaction (c).

Health and Personal Characteristics

Both situational and personal characteristics appear to be important in respect to one's health and well-being (Houkes, 2002). Neuroticism refers to individual differences in the perception of negative emotions and self-concept (Watson, Clark, & Tellingen, 1988). It predisposes persons to experience a moderately stable lower level of subjective well-being (e.g. Costa & McCrae, 1980). Women have been found by some to have a higher average level of neuroticism than men (Heaven & Shochet, 1995; Lynn & Martin, 1997) this personal characteristic should be taken into account in a study regarding gender differences in health,

well-being and life satisfaction. Although women on the average report higher levels of neuroticism, we expect neuroticism to be harmful for the health of both men and women. Accordingly, for the present sample we hypothesize as follows:

Hypothesis 5: Women will report a higher level of neuroticism than men.

Hypothesis 6: Neuroticism has a negative effect on men's and women's health (a), psychological well-being (b) and life satisfaction (c).

METHOD

Respondents and procedure

Data were obtained from a so-called telepanel; the CentERpanel[1], which consists of about 2000 Dutch households. Members of this panel are requested to fill out a questionnaire at their home computers every week. Topics vary each week. Before entering the CentERpanel, participants agree with the conditions of the panel and give permission to use their data for research purposes. To be a member of the panel, one does not need to have a personal computer with access to the internet. A household without internet access is supplied with a so-called set-top box with which questionnaires can be filled out using a television screen as a monitor. Questionnaires for the present study were only sent to those panel members holding a paid job at the time of the survey (n=1171). A total of 962 panel members returned the questionnaire (response rate 82%). To be included in the present study, respondents had to meet the following criteria; (1) be married or cohabiting and (2) have a spouse who was also employed at the time of the survey, i.e. they had to be part of a dual-earner relationship. Furthermore, if two or more panel members of the same household returned the questionnaire, the data of only one of these respondents were used to ensure that the data would not be biased by characteristics of the couple. Hence, in case of couple data we randomly removed equal numbers of male and female respondents from the sample.

A total of 459 respondents met these inclusion criteria. Listwise exclusion of missing data from all variables resulted in a final sample of 450 respondents. Participants received a small compensation for being member of the panel. The CentERpanel is representative of the Dutch population, i.e. on average the panel has similar experiences and knowledge to the population in the Netherlands (http://www.uvt.nl/centerdata).

Of these 450 respondents, 272 were men and 178 were women. Respondents ranged in age from 22 to 62, with a mean age of 41 years (on average, men were 5 years older than women, respectively 43 and 38 years). Sixty-three percent of the respondents had one or more children. In terms of educational attainment, most respondents (56%) completed some form of secondary or higher vocational education, this characteristic did not differ by gender.

[1] For detailed information on the CentERpanel see http://www.uvt.nl/centerdata/en/whatwedo/thecenterpanel/

On average respondents worked 36 hours per week. Women worked fewer hours per week than men, respectively 29 and 41 hours per week. Respondents held various occupations.

Measures

Health, Psychological well-being and life satisfaction. Health, psychological well-being and life satisfaction were measured with the Health Monitor a Dutch questionnaire developed by van Heck and Vingerhoets (2001)[2]. Health refers to one's general health condition and was measured with 8 items. A sample items is: "To what extent did your physical health or emotional problems hinder you in your daily activities, such as walking, climbing stairs, get yourself dressed, taking a bath, going to the bathroom?". Response categories were (1) "not at all" to (5) a "great deal", or (1) "not at all true" to (5) "totally true", or (1) "never" to (5) "always". Responses were reversed such that high scores indicate good health. Cronbach's alpha for this scale was .86.

Psychological well-being refers to one's subjective well-being and was measured with 5-items. For each item, respondents could indicate how they felt during the last month. An sample item is: "Last month..... I felt somber and blue". Response categories were (1) "never" to (5) "always". Again negative formulated responses were reversed such that high scores indicate high levels of psychological well-being. Cronbach's alpha for this scale was .82.

Life satisfaction refers to one's possibilities to satisfy one's needs and desires and to participate in activities that lead to personal growth and self-development and was measured with 5-items. An sample items is: "To what extent are you satisfied with the circumstances you live in?". Response categories were (1) "not that satisfied" to (5) "extremely satisfied", or, (1) "not at all" to (5) "very". The Cronbach alpha for this scale was .78.

Social support. Social support from one's spouse and social support from colleagues were measured by two 8-item scales developed by Parasuraman, Greenhaus and Granrose (1992). Both scales represent the four types of support as conceptualized by House (1981): emotional, instrumental, appraisal and informational support. For the present study two additional scales, measuring social support from one's relatives and friends, and social support from one's supervisor, were added. Sample items are "To what extent is/are your [.....spouse/relatives/friends/colleagues/supervisor.....] willing to listen to your problems?", "To what extent is/are your [.....] concerned about your welfare?", "To what extent do/does your [.....] provide you with information you need to do the things you want to do?" and "To what extent do/does your [.....] praise you for your accomplishments?" Response categories were (1) "not at all" to (5) "a great deal". The scales of Parasuraman et al. (1992) were translated into Dutch using standard procedures (including back-translation into English).

[2] The full questionnaire can be obtained from the corresponding author

The Cronbach alpha for social support from one's spouse was .86, from one's relatives and friends .87, from colleagues .90 and for social support from one's supervisor .95.

Neuroticism. Neuroticism was measured with the 5-item Emotional Stability Scale of the B5BBS-25 developed by Mervielde (1992). This scale consists of a set of bipolar markers to indicate one's emotional stability. Respondents could indicate which trait described them best. Cronbach's alpha for this scale was .81.

Background variables: The background variables measured were gender (0= male, 1=female), age, education, number of children, number of working hours and number of working hours of the spouse. Age, number of children, number of working hours, and number of working hours of the spouse were measured as continuous variables. Education was measured with one item with six categories, ranging from (1) grade school to (6) university.

Data analysis

Zero order correlations were computed to examine the general pattern of relations among the variables. One-way analyses of variance (ANOVA's) were used to test for gender differences concerning health, psychological well-being, life satisfaction, work-related and non-work related sources of social support and for neuroticism. A series of multiple regression analyses was performed to assess the effects of gender and social support on each dependent variable. For each dependent variable, a regression equation was estimated in which the background variables and neuroticism were entered as a block at Step 1. At Step 2, the social support variables were entered as a block into the equation. To examine if neuroticism, the background variables and the sources of social support differently affect men's and women's health, psychological well-being and life satisfaction (hypothesis 4 and 5), at Step 3, the interaction effects between gender and neuroticism, gender and background variables, and gender and sources of social support were entered as a block into the equation. To eliminate non-essential correlation between the interaction terms and their component variables, all predictor variables were centered (Aiken & West, 1991). To assess the model fit in each step the change is R^2 was tested. All analyses were cross-sectional.

RESULTS

The means, standard deviations and correlations among study variables are displayed in Table 1. Gender was related to all the outcome variables, as well as to three of the four sources of social support. The sources of social support were positively related to one another. Most sources of support were positively related to psychological well-being and life satisfaction. Social support from supervisor and social support from colleagues were only related to health. The outcome variables were related positively with one another. As expected, neuroticism showed negative relations with all the outcome variables and the sources of social support.

Table 1. Means, standard deviations and correlations among study variables

	Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Gender (0= M, 1 = F)	0.40	0.49	1.0													
2	Age	40.66	8.65	-.29**	1.0												
3	Education	5.02	1.38	-.03	-.02	1.0											
4	Number of children	1.24	1.10	.00	.05	-.11*	1.0										
5	Working hours	35.88	10.80	-.55**	.12**	.15**	-.16**	1.0									
6	Working hours spouse	32.11	14.40	.61**	-.29**	.05	-.20**	-.30**	1.0								
7	Neuroticism	3.31	1.20	.17**	-.11*	-.01	.07	-.09*	.16**	1.0							
8	Support from Spouse	3.69	0.72	-.14**	.01	.01	-.17**	.14**	-.03	-.17**	1.0						
9	Support from Relatives & Friends	2.78	0.73	.14**	-.21**	.05	-.06	-.11*	.09	-.12**	.37**	1.0					
10	Support from Colleagues	3.20	0.70	.11*	-.11*	.04	.02	-.13**	.01	-.23**	.20**	.33**	1.0				
11	Support from Supervisor	3.06	0.89	-.01	-.11*	-.03	.06	-.06	.01	-.13**	.09*	.25**	.55**	1.0			
12	Psychological Well-Being	4.22	0.57	-.19**	.10*	-.02	-.07	.11**	-.13**	-.40**	.18**	-.01	.13**	.14**	1.0		
13	Health	4.18	0.63	-.17**	.03	.03	-.01	.10*	-.13**	-.27**	.01	-.01	.10*	.10*	.53**	1.0	
14	Life Satisfaction	3.79	0.59	.09*	.04	.06	-.06	-.05	.07	-.28**	.36**	.24**	.25**	.15**	.40**	.20**	1.0

Note: $N = 450$, *p<.05; **p<.01 (two-tailed). Support = Social Support

Gender differences

Table 2 displays the means and standard deviations of men and women separately. Results of the ANOVA's for sex differences in health, psychological well-being, and life satisfaction showed that men reported better health ($F(1, 448) = 13.67$, $p < .001$), and psychological well-being ($F(1, 448) = 16.92$, $p < .001$) than women, confirming Hypotheses 1a and 1b. Women reported more life satisfaction than men ($F(1, 448) = 3.99$, $p < .05$) contrary to Hypothesis 1c.

With regard to the sources of social support and neuroticism, men and women did not report significantly different amounts of social support from supervisor ($F(1, 448) = .02$, *ns*). Women reported more social support from colleagues than men, ($F(1, 448) = 5.67$, $p < .05$). Hypotheses 2a and 2b, expecting men to report more social support from their supervisor and colleagues, were not confirmed. Men reported more social support from their spouse than women ($F(1, 448) = 9.48$, $p < .01$), whereas women reported more social support from relatives and friends ($F(1, 448) = 9.04$, $p < .01$), confirming hypotheses 3a and 3b. In accordance with hypothesis 5, women reported higher levels of neuroticism than men ($F(1, 448) = 12.75$, $p < .001$).

Table 2. Means (and standard deviations) for men and women separately

	Men (n =272)	Women (n =178)
Health	4.27 (.58)	4.05 (.67)
Psychological Well-Being	4.31 (.53)	4.09 (.60)
Life Satisfaction	3.75 (.59)	3.86 (.59)
Social Support from Supervisor	3.07 (.85)	3.06 (.95)
Social Support from Colleagues	3.13 (63)	3.29 (.79)
Social Support from Spouse	3.77 (.65)	3.56 (.81)
Social Support from Relatives and Friends	2.69 (.67)	2.91 (.81)
Neuroticism	3.15 (1.18)	3.56 (1.19)

Results of the regression analyses

Table 3 through 5 show the results of the regression analyses for health, psychological well-being and life satisfaction, after controlling for gender, age, education, number of children, working hours, working hours of the spouse and neuroticism.

Health

Table 3 shows the results of the regression analysis for health. Neuroticism was significantly related to health ($\beta = -.25$, $p < .001$). None of the background variables, and none of the four social support variables were related to health. Social support from colleagues was related

differently to men and women's health, as the interaction effect between social support from colleagues and gender was significant ($\beta = .18, p < .05$).

Men's health decreased when men receive social support from colleagues, whereas women's health increased when they receive social support from their colleagues. This implies that, for health, hypothesis 4a, proposing that the sources of social support have a positive effect on both working men and women's health was not supported for social support from colleagues. With respect to the other sources of support; social support from supervisor, spouse, and relatives and friends no gender differences were found. Thus, supporting hypothesis 4a for these three sources of support.

As shown in Table 3, the background variables and neuroticism explained the largest proportion of the variability associated with health ($R^2 = .09$). None of the four social support variables explained a significant portion of the variability associated with health ($\Delta R^2 = .01$, ns), after controlling for neuroticism and the background variables. The proportion of additional variance explained by the interaction terms, after controlling for neuroticism, the background and social support variables in the model, was not significant ($\Delta R^2 = .02$, ns).

Psychological well-being

Table 4 shows the results of the regression analysis for psychological well-being. None of the background variables were significantly related to psychological well-being. Neuroticism was significantly related to psychological well-being ($\beta = -.35, p < .001$). Of the four social support variables, social support from spouse, from relatives and friends, and from supervisor were significant related to psychological well-being ($\beta = .13, p < .01, \beta = -.11, p < .05$, and $\beta = .11, p < .05$ respectively). Model 3 shows that the interaction effect of gender by working hours of the spouse was significantly related to psychological well-being ($\beta = -.40, p < .05$), indicating that this background variable was differentially important for men and women. Men reported better psychological well-being as the number of working hours of their spouse increased. Women, on the other hand, reported diminished well-being as the number of working hours of their spouse increased. Sources of social support did not differ by gender, confirming hypothesis 4b.

As shown in Table 4, the background variables and neuroticism explained the largest proportion of the variability associated with health ($R^2 = .18$). The four social support variables explained a significant though small portion of the variability associated with psychological well-being ($\Delta R^2 = .02, p < .01$), after controlling for neuroticism and the background variables. The proportion of additional variance explained by the interaction terms, after controlling for neuroticism, the background and social support variables in the model, was not significant ($\Delta R^2 = .01, ns$).

Table 3. Sources of social support as predictors of health ($N = 450$)

		Model 1			Model 2			Model 3		
	Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Step 1	Control variables [a]									
	Neuroticism	-0.13	0.02	-0.25***	-0.13	0.03	-0.25***			
Step 2	Support from Spouse				-0.05	0.05	-0.06			
	Support from Relatives and Friends				-0.02	0.05	-0.03			
	Support from Colleagues				0.04	0.05	0.05			
	Support from Supervisor				0.04	0.04	0.05			
Step 3	Gender*Working Hours							-0.01	0.01	-0.20
	Gender*Working Hours Spouse							-0.00	0.01	-0.16
	Gender*Neuroticism							0.07	0.05	0.08
	Gender*Support Colleagues							0.23	0.10	0.18*
	Gender*Support Supervisor							-0.02	0.08	-0.02
	Gender*Support Spouse							-0.08	0.09	-0.06
	Gender*Support Relatives and Friends							0.05	0.09	0.04
	R^2		0.09			0.10			0.12	
	F for change in R^2		7.54***			1.13			1.57	

Note: [a] Gender, age, number of children, working hours and working hours spouse were included in Step 1 but are not shown; *$p < .05$; **$p < .01$; ***$p < .001$; All support variables were centered at their means

Table 4. Sources of social support as predictors of psychological well-being ($N = 450$)

		Model 1			Model 2			Model 3		
	Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Step 1	Control variables [a]									
	Neuroticism	-0.18	0.02	-0.37***	-0.17	0.02	-0.35***			
Step 2	Support from Spouse				0.10	0.04	0.13**			
	Support from Relatives and Friends				-0.09	0.04	-0.11*			
	Support from Colleagues				0.01	0.04	0.02			
	Support from Supervisor				0.07	0.03	0.11*			
Step 3	Gender*Working Hours							-0.01	0.01	-0.15
	Gender*Working Hours Spouse							-0.01	0.01	-0.40*
	Gender*Neuroticism							-0.01	0.04	-0.01
	Gender*Support Colleagues							-0.02	0.09	-0.02
	Gender*Support Supervisor							0.04	0.07	0.05
	Gender*Support Spouse							-0.01	0.08	-0.01
	Gender*Support Relatives and Friends							-0.01	0.08	-0.01
	R^2		0.18			0.20			0.21	
	F for change in R^2		15.63***			3.68**			0.93	

Note: [a] Gender, age, number of children, working hours and working hours spouse were included in Step 1 but are not shown;
*$p < .05$; **$p < .01$; ***$p < .001$; All support variables were centered at their means

Life satisfaction

Table 5 shows the results for life satisfaction. Age and neuroticism were significantly related to life satisfaction (β = -.10, $p < .05$, and β = -.22, $p < .001$, respectively). Of the social support variables, only social support from spouse was significant related to life satisfaction (β = .31, $p < .001$). The interaction effect of gender by working hours of the spouse was significantly related to life satisfaction (β = -.37, $p < .05$), indicating that this background variable was related differently to men and women's life satisfaction. Men's life satisfaction was higher as their spouses worked more hours, whereas women's life satisfaction was lower as their spouses worked more hours. Sources of social support did not differ by gender, confirming Hypothesis 4c.

As shown in Table 5, the background variables and neuroticism explained a significant portion of the variance in life satisfaction (R^2 = .11). The four social support variables explained a significant and large portion of the variability associated with psychological well-being (ΔR^2 = .13, $p < .001$), after controlling for neuroticism and the background variables. The proportion of additional variance explained by the interaction terms, after controlling for neuroticism and the background and social support variables in the model, was not significant (ΔR^2 = .02, ns).

Neuroticism

No interaction effects were found for neuroticism and gender in each of the regression analyses. Hypotheses 6a, b and c, stating that neuroticism has a negative effect on men's and women's health, psychological well-being and life satisfaction, therefore were confirmed.

DISCUSSION

In the present study, we examined gender differences in health, psychological well-being, life satisfaction, sources of social support, and neuroticism. Furthermore, we examined gender differences concerning the effects of work-related and non-work related sources of social support on health, psychological well-being and life satisfaction.

Gender differences regarding health and psychological well-being were as expected, that is, men reported better health and psychological well-being than women. For life satisfaction, gender differences were opposite to what we expected, that is, women reported higher life satisfaction than men. The gender differences found for work-related sources of social support were contrary to what we expected. That is, men did not report more social support from supervisor and from colleagues than women; instead women reported more social support from colleagues than men. The gender differences that were found for the non-work related sources of social support were as expected and in line with Olsen and Shultz (1994), Reevy and Maslach, (2001) and Vaux (1985).

Table 5. Sources of social support as predictors of life satisfaction ($N = 450$)

		Model 1			Model 2			Model 3		
	Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Step 1	Control variables [a]									
	Neuroticism	-0.15	0.02	-0.30***	-0.11	0.02	-0.22***			
Step 2	Support from Spouse				0.25	0.04	0.31***			
	Support from Relatives and Friends				0.05	0.04	0.06			
	Support from Colleagues				0.07	0.05	0.08			
	Support from Supervisor				0.03	0.03	0.04			
Step 3	Gender*Working Hours							0.00	0.01	0.04
	Gender*Working Hours Spouse							-0.01	0.01	-0.37*
	Gender*Neuroticism							0.08	0.05	0.10
	Gender*Support Colleagues							0.00	0.09	0.00
	Gender*Support Supervisor							-0.07	0.07	-0.07
	Gender*Support Spouse							0.01	0.08	0.01
	Gender*Support Relatives and Friends							0.13	0.08	0.11
	R^2		0.11			0.24			0.26	
	F for change in R^2		8.70***			18.95***			1.56	

Note: [a] Gender, age, number of children, working hours and working hours spouse were included in Step 1 but are not shown; *$p < .05$; **$p < .01$; ***$p < .001$; All support variables were centered at their means.

We found, with respect to one's health, psychological well-being and life satisfaction, that men and women equally benefit from work-related and non-work related sources of social support. There was one exception, with respect to health, men did not benefit from social support from colleagues. In fact receiving social support from colleagues was associated with decreased health for men, whereas women's health increased when receiving social support from colleagues. Women report higher levels of neuroticism. However, neuroticism equally affected men's and women's health, psychological well-being and life satisfaction.

An explanation for the fact that working women, despite worse health and psychological well-being than working men, report higher life satisfaction may be that working on the job provides women with more opportunities for development, economical independence, social contacts, and therefore leads to a more meaningful life, which increases one's life satisfaction (Barnett, 1994; Geurts, Taris, Demerouti, Dikkers, & Kompier, 2002).

That women report more social support from colleagues than men, may be because women seek more intimate relationships than men (Belle, 1987; Ogus, Greenglass, & Burke, 1990). It may also be, in line with Taylor et al., (2000), that women on the job contribute more frequently than men to the development of social grouping to exchange resources and responsibilities, and therefore receive more social support from this source. Furthermore, in line with Ibarra (1992) it may be that women have more multiplex ties to the members of their social networks, i.e., colleagues are not only colleagues but are also friends.

Although men and women differed with regard to the sources from which they receive social support, we only found a gender difference regarding the relationship between social support from colleagues and health. Men appeared not to benefit from social support received from their colleagues in terms of health, while women did benefit. That is, women's health increased when receiving social support from their colleagues. So, gender differences in received social support from colleagues only affected men and women's health differently. As, we did not observe any other significant gender by source of social support interactions, generally it can be concluded that the gender differences in the sources of social support did not explain the gender differences in health, psychological well-being and life satisfaction. The gender differences that occurred concerned the working hours of one's spouse. We found that women's psychological well-being and life satisfaction decreased when men worked more hours, whereas more total working hours of women was associated with an enhanced level of psychological well-being and life satisfaction of men. In accordance with role strain theory, we assume that, as men work longer hours, women will perform most domestic and care activities, and hence more often carry the burden of combining multiple roles. A possible explanation for men's greater psychological well-being and life satisfaction when women work longer hours may be that this leads to more financial resources which can be used for buying care (Barnett, 1982; Bird & Bird, 1986). So, in general, women do not benefit if the total working hours of their spouses increase, whereas men do benefit from an increase in the total working hours of their spouses. These findings are contrary to that of Stolzenberg

(2001), who found that if men worked more hours this had no detrimental effects on women's health, and if women worked more than 40 hours per week this had substantial negative effects on men's health. An explanation for these differences may be that most women in the Netherlands work part-time; only very few work more than 40 hours per week[3], whereas in the study by Stolzenberg detrimental health effects for men were found for women who worked more than 40 hours per week. Furthermore, although most women in the Netherlands work part-time and carry out most domestic and care activities, it may be that they expect their spouses also to do their share at home and if men work more hours they have less time to do so.

Another explanation may be the fact that in the Netherlands flexible work time arrangements, such as working part-time are very common. Although our sample is representative of the Dutch population, the possibility to generalize from our results may be more difficult, especially in countries where such flexible work time arrangements are not common.

As expected, neuroticism appears to be an important variable in research on health and well-being, as it was related to all three outcome variables. Moreover, although women reported higher levels of neuroticism, neuroticism equally affected men's and women's health, psychological well-being and life satisfaction, as we observed no significant gender by neuroticism interactions. For both men and women neuroticism had a negative effect on their health, psychological well-being and life satisfaction.

It seems that one's spouse was the most important significant other in one's life, with respect to life satisfaction, as social support from spouse was the only source of support that was related significantly to life satisfaction for men and women. The other sources of social support were not significantly related to life satisfaction. So, it seems that regardless of the other sources of support, having a supportive spouse enhances one's satisfaction with one's life.

Some limitations and issues for future research should be noted. One limitation of the present study is that it does not include type of work. It may be that the results of the present study are affected because we did not distinguish between different types of work. Some types of work, e.g., health care and education, may be more harmful to one's health than others. It may be that, especially, different networks characterize these types of work, e.g. in health care most employees are female, therefore networks exist for the largest part of female members, whereas in technical industry male members dominate networks. Another limitation, related to the first one, has to do with work pressure. Work pressure is different for each type of work; as a consequence, building a network may be affected and hence dissimilar for people in different jobs. A third limitation, that is also work-related, deals with the degree of interdependency, i.e., to what extent is one dependent on others in doing one's job

[3] In our study only 18 male respondents indicated that their spouse was working more than 40 hours per week.

successfully. Interdependency may lead to enhanced vulnerability to health complaints, as successfully accomplishing one's job lies beyond one's control (e.g., Merllié & Paoli, 2001). Fourth, considering the fact that men and women's psychological well-being and life satisfaction were affected by the working hours of the spouse, in a sample consisting of respondents who are part of a dual-earner couple, it would be very useful to examine 'couple' or 'paired response' data in future research. Studying 'couple' data might be an opportunity to compare husbands and wives, but also to get insight into how decisions made by one of them, influences the other.

Moreover, to better understand the role of social support in relation to health, psychological well-being and life satisfaction, it is important in future research to consider work characteristics that may affect one's social network. Because most gender differences in received social support did not explain gender differences in health, psychological well-being and life satisfaction, future research should examine coping styles other than social support that are effective in reducing role strain.

Furthermore, future research should further explore the role of social support from spouse as well as crossover-effects from work and non-work related domains of life, as findings of the present study showed that social support from spouse is an important source of support to enhance psychological well-being and life satisfaction.

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Chapter 4

Reducing Work-Family Conflict through Different Sources of Social Support*

ABSTRACT

The present study examines the relationship between four sources of social support (i.e., spouse, relatives and friends, supervisor, and colleagues) and time and strain-based work-to-family and family-to-work conflict among 444 dual-earners. Gender differences with respect to the relationship between social support and work-family conflict were examined as well. The relationship between the sources of support and work-family conflict was tested using multiple regression analyses. Results showed that women reported more strain-based work-to-family conflict than men. Social support from spouse and from colleagues were related to family-to-work conflict, while none of the sources of social support were related to work-to-family conflict. Social support from supervisor and from colleagues were related differently to work-to-family conflict (time-based) and family-to-work conflict (strain-based) for men than for women. We conclude that social support is especially important in reducing family-to-work conflict.

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INTRODUCTION

Today, many working people experience stress as they struggle with the difficulties of combining work and family responsibilities, that is, they experience work-family conflict. Work-family conflict has negative consequences for women as well as men, leading to reduced well-being and impaired health (Allen, Herst, Bruck, & Sutton, 2000; Frone, Russell, & Cooper, 1997). Social support has been found helpful in reducing or managing stress associated with combining work and family life (Carlson & Perrewé, 1999; Greenhaus & Parasuraman, 1994). Most of these studies focused on the relationship between supervisory support or spousal support and work-family conflict. In the present study, we examine four sources of social support, stemming from the work and home domain, in relation to work-family conflict. As men and women are generally believed to differ with regard to perceived social support and work-family conflict, gender differences are studied as well.

Work-family conflict

Work-family conflict is "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" (Greenhaus & Beutell, 1985, p.77), such that participation in one domain becomes more difficult due to the demands of participation in the other domain and vice versa (Adams, King, & King, 1996; Greenhaus & Beutell, 1985). Work-family conflict is considered to be bi-directional (Adams et al., 1996; Frone, Russell, & Cooper, 1992a), that is, work can interfere with family (work-to-family conflict; WFC) and family can interfere with work (family-to-work conflict; FWC) (Allen et al., 2000). As work-family conflict originates from various conditions, different forms of conflict are distinguished (Greenhaus & Beutell, 1985; Stephens & Sommer, 1996). The two forms most commonly distinguished are time-based and strain-based work-family conflict (Greenhaus & Parasuraman, 1994; Rotondo, Carlson, & Kincaid, 2003). Time-based conflict occurs when time devoted to a role in one domain (i.e. work or home domain) leaves too little time to participate in the other domain (Greenhaus & Beutell, 1985). Strain-based conflict occurs when strain experienced in one role domain interferes with effective performance of role behaviours in the other domain (Greenhaus & Beutell, 1985).

Work-family conflict and gender

Traditionally, the relationship between work and family roles is expected to differ for men and women. Pleck (1977) suggested that roles from the work domain are more likely to intrude into the family domain for men, whereas for women, roles from the family domain are more likely to interfere with the roles from the work domain. Accordingly, men are more likely to experience WFC and women are more likely to experience FWC.

Nowadays, with most men and women combining work and family responsibilities, one would expect both men and women to experience WFC and FWC to the same extent. However, only a few studies have supported this assumption i.e., reported no gender

differences (Eagle, Miles, & Icenogle, 1997; Frone, Russell, & Cooper, 1992b; Kinnunen, Geurts, & Mauno, 2004). Most studies have shown that men and women differ with respect to experienced WFC and FWC. Some found women to report more WFC than men (Cinamon & Rich, 2002; Duxbury, Higgins, & Lee, 1994), whereas others found women to report both more WFC and FWC than men (Williams & Alliger, 1994). Still others, such as Behson (2002), in line with Pleck (1977), found women to report more FWC than men.

Carlson, Kacmar and Williams (2000), who distinguished between time and strain-based forms of WFC and FWC, found that women reported higher levels of both strain-based and time-based FWC, as well as higher levels of strain-based WFC. However, they found no gender differences in time-based WFC. Wallace (1999) also found that women reported more strain-based WFC than men, and did not find gender differences for time-based WFC.

In sum, most studies support the existence of gender differences in experienced WFC and FWC. However, results are inconclusive, making it difficult to draw solid conclusions about differences in WFC and FWC between employed men and women.

In the present study, we follow Plecks's (1977) proposition and expect men to experience more WFC and women more FWC. In line with Carlson et al.(2000), we expect gender differences for the different forms of conflict, and hypothesize that:

H1: Men experience more time-based WFC (1a) and more strain-based WFC (1b) than women.

H2: Women experience more time-based FWC (2a) and more strain-based FWC (2b) than men.

Work-family conflict and social support

Social support involves the exchange of resources between at least two persons, with the aim of helping the person who receives the support. It can involve providing empathy, care, love and trust (emotional support), actual aid in time, money and energy (instrumental support), information relevant to self-evaluation (appraisal support), and advice, information and suggestions (informational support) (House, 1981 p.39).

One may receive social support from work-related sources or non-work related sources (Adams et al., 1996). Men generally receive more social support from their spouse than women (Reevy & Maslach, 2001; Vaux, 1985), whereas women generally receive more social support from relatives and friends than men (Joplin, Nelson, & Quick, 1999; Olson & Shultz, 1994). With respect to social support received from the work domain some studies report no gender differences at all (cf. Geller & Hobfoll, 1994), while others find that women receive more social support from the work domain (cf. Fusilier, Ganster, & Mayes, 1986). Others, who did find gender differences in social support, reported that women received more social support from colleagues than men (Roxburgh, 1999; van Daalen, Sanders, & Willemsen, 2005). The latter two studies examined gender differences in social support from the home domain as well. Roxburgh (1999) did not find gender differences in spousal support,

whereas van Daalen et al. (2005) found men to receive more social support from their spouse, and women from relatives and friends.

Although men and women seem to differ with respect to the sources from which they receive social support, both nevertheless seem to experience social support to be effective in reducing work-family conflict (Adams et al., 1996; Behson, 2005; Warren & Johnson, 1995). It appears that social support reduces work-family conflict either directly or through altering the impact of stressors that lead to work-family conflict, such as role conflict and role ambiguity. Carlson and Perrewé (1999), for instance, found that social support from the work domain reduced WFC through its' impact on work role conflict, work time demands, and work role ambiguity. Social support from the home domain reduced the severity of family role conflict, family time demands, and family role ambiguity, which in turn reduced FWC. Other studies examining the effects of one particular source of social support reported the same. Thomas and Ganster (1995) found that support from the supervisor reduced work-family conflict directly, as well as indirectly, through the increased sense of control over the areas of work and family. Aryee, Luk, Leung, and Lo (1999) found spousal support to moderate the effects of parental overload on FWC.

These results indicate that social support from the work domain reduces WFC and social support from the home domain reduces FWC. However, most of the studies mentioned above examined only one source of social support, or examined the effects of social support from the work domain on work-related antecedents of WFC and the effects of social support from the home domain on home-related antecedents of FWC (Carlson & Perrewé, 1999).

Therefore, it remains unclear whether social support from the work domain relates more strongly to WFC than social support from the home domain, and whether social support from the home domain relates more strongly to FWC than social support from the work domain. The present study examined the relationship between social support from the work and home domains, and WFC and FWC. In line with the studies mentioned above we hypothesize that:

H3: Social support from the work domain relates more strongly to time-based (3a) and strain-based (3b) WFC than social support from the home domain.

H4: Social support from the home domain relates more strongly to time-based (4a) and strain-based (4b) FWC than social support from the work domain.

In addition to the studies that found social support beneficial in reducing work-family conflict, Elliott (2003) found social support to affect men and women's work and family role strain differently. Elliott (2003) found a larger effect of spousal supportiveness for women than for men. She did not find gender differences regarding the effect of support from colleagues on work and role strain. Perrewé and Carslon (2002) also found a stronger decrease of FWC for women when levels of social support from the family increased than for men, and no gender differences in the relationship between work-related support and WFC.

In the present study, social support from the home (i.e., spouse, relatives and friends) and work domain (i.e., supervisor and colleagues) were included to examine whether or not

men and women benefit from the same sources of social support when combining work and family responsibilities. We expect that one benefits most from the social support received from the domain in which, traditionally, one's core responsibilities lie (see also hypotheses 1 and 2). We hypothesize that:

H5: Sources of social support from the *work domain* are more strongly negatively related to both forms of men's WFC (5a) and men's FWC (5b) than to women's.

H6: Sources of social support from the *home domain* are more strongly negatively related to both forms of women's WFC (6a) and women's FWC (6b) than to men's.

METHOD

Respondents and procedure

The data used in this study are part of a larger research project on work-family conflict, social support, health and well-being. Although the data of the present study were used in an earlier study, and hence share the same respondents, both studies report on different outcome variables. The present study reports on the relationship between social support and work-family conflict, whereas the other study reports on the relationship between social support and psychological well-being, health and life satisfaction.

Data were obtained from CentERpanel, a so-called telepanel, which consists of about 2000 Dutch households. Members of this panel are requested to fill out a questionnaire on various topics once a week through the internet. Questionnaires were sent to all panel members with a paid job at the time of the survey (n=1171). After a reminder, a total of 962 questionnaires were returned (response rate 82%). If two or more panel members from the same household returned the questionnaire, the data of only one of these respondents were used for the present study. Equal numbers of male and female respondents were randomly removed from the sample. To be included in the present study, panel members had to be employed and have a spouse who was also employed, i.e., they had to be part of a dual-earner relationship. A total of 459 respondents met these inclusion criteria. Listwise exclusion of missing data of all variables resulted in a final sample of 444 respondents.

Of the 444 respondents, 271 were men and 173 were women. Respondents ranged in age from 22 to 62, with a mean age of 41 years (on average, men were 5 years older than women, 43 respectively 38 years). Most respondents (57%) completed some form of secondary or higher vocational education. There were no gender differences in this respect. On average, respondents worked 36 hours per week. Women worked fewer hours per week than men, respectively 28 and 41 hours per week.

Measures

Work-family conflict

To measure work-family conflict, we used four scales developed by Carslon, Kacmar, and Williams (2000). The original scales were translated into Dutch using standard procedures, including back-translation into English. Each scale consists of three items and measures one of the four dimensions of work-family conflict, that is, time-based work-family interference, time-based family-work interference, strain-based work-family interference and strain-based family-work interference. Sample items are: "My work keeps me from my family activities more than I would like", "I have to miss work activities due to the amount of time I must spend on family responsibilities", "Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy", "Because I am often stressed from family responsibilities, I have a hard time concentrating on my work". Items were scored on a 5-point rating scale ranging from 1, 'totally disagree', to 5, 'totally agree'. Cronbach's alpha for time-based work-family interference was .70, for time-based family-work interference .83, for strain-based work-family interference .80 and .93 for strain-based family-work interference.

Social support

Social support was measured with four 8-item scales, measuring social support from one's spouse, social support from one's relatives and friends, social support from one's colleagues and social support from one's supervisor. Social support from one's spouse and social support from one's colleagues were measured by two scales developed by Parasuraman, Greenhaus, and Granrose (1992). Both scales represent the four types of support as conceptualised by House (1981): emotional, instrumental, appraisal and informational support. Social support from one's relatives and friends, and social support from one's supervisor were measured with two complementary scales, based on the social support scales of Parasuraman et al., (1992), and constructed for the present study. The scales developed by Parasuraman et al. (1992) were translated into Dutch using standard procedures including back-translation. Sample items are: "To what extent is/are your [...spouse/relatives/friends/ colleagues/supervisor...] willing to listen to your problems?", "To what extent is/are your [...] concerned about your welfare?", "To what extent do/does your [...] provide you with information you need to do the things you want to do?" and "To what extent do/does your [...] praise you for your accomplishments?" Items were scored on a 5-point rating scale ranging from 1, 'not at all', to 5, 'a great deal'. Cronbach's alpha for social support from one's spouse was .86, for social support from one's family and friends .87, for social support from colleagues .90 and for social support from one's supervisor .95.

Background variables

The background variables measured were gender (0 = female, 1 = male), age, number of working hours and number of working hours of the spouse (all measured as continuous variables), and education (measured with one item consisting of six response categories ranging from 1, 'primary education', to 6, 'university').

Data analysis

Zero order correlations were used to examine the general pattern of relations among the variables. Analyses of covariance (ANCOVA's) were used to test for gender differences concerning time and strain-based WFC and FWC, controlling for number of children in the household, and own and spouse's working hours. A series of hierarchical regression analyses was performed to assess the effects of gender and social support on each dependent variable. Independent variables were entered as a block into the regression equation in the following order: (1) background variables; (2) sources of social support, and; (3) the interaction effects between gender and the sources of social support. In order to minimize multicollinearity, product terms were added to the equation one at a time. If an interaction effect was significant, separate regression lines for men and women were obtained by substituting the value of women (0) by the value of men (1) into the regression equation (Jaccard & Turrusi, 2003). In order to eliminate non-essential correlation between the interaction terms and their component variables, all predictor variables were centered (Aiken & West, 1991).

RESULTS

The means, standard deviations and correlations among study variables are displayed in Table 1.

Gender differences

Results of the ANCOVA's on sex differences in work-family conflict showed that, after controlling for number of children in the household, working hours and spouse's working hours, women reported more strain-based WFC than men (M_{women} = 2.26, S.D. = 0.85; M_{men} = 2.23, S.D. = -.85; F (4, 439) = 11.18, $p < .01$). However, the effect size was small (.03). No gender differences were found for the other forms of work-family conflict. Hence hypotheses 1a and 1b proposing that men report more time and strain-based WFC than women were not supported. Hypotheses 2a and 2b proposing that women would report more time and strain-based FWC were also not supported.

Table 1. Means, standard deviations and correlations among study variables

	Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Gender (0 = Female, 1 = Male)	0.61	0.49	-												
2	Age	40.69	8.65	.29**	-											
3	Education	5.03	1.38	-.03	-.02	-										
4	Working Hours	35.89	10.72	.56**	.13**	.15**	-									
5	Working Hours Spouse	31.98	14.30	-.61**	-.29**	.04	-.31*	-								
6	Support from Spouse	3.68	0.72	.16**	.02	.02	-.14**	-.02	-							
7	Support from Relatives & Friends	2.77	0.73	-.13**	-.21**	.05	-.12	.09*	.36*	-						
8	Support from Colleagues	3.20	0.71	-.11*	-.09*	.04	-.14	.01	.20**	.33*	-					
9	Support from Supervisor	3.06	0.89	.01	-.11*	-.03	-.07	-.00	.09*	.25**	.54**	-				
10	Time-based WFC	2.42	0.88	.32*	.05	.07	.48*	-.32*	-.06	-.10*	-.15*	-.07	-			
11	Strain-based WFC	2.24	0.85	-.05	-.09*	.09	.22*	.01	-.11	-.07	-.19*	-.17**	.51**	-		
12	Time-based FWC	1.89	0.80	-.05	-.03	.09	.07	.03	-.26**	-.07	-.19**	-.05	.35*	.44**	-	
13	Strain-based FWC	1.68	0.68	.04	-.02	-.00	.13**	-.09	-.22**	-.08	-.17*	-.06	.36**	.54**	.47*	-

Note: $N = 444$, *p<.05; **p<.01 (two-tailed); Support = Social Support

Results of the regression analyses

Time-based WFC

Table 2 shows the results of the regression analyses for time-based WFC. Both own and spouses' working hours were related to time-based WFC (β = .45, p < .001 and β = -.23, p < .001 respectively). None of the social support variables were significantly related to time-based WFC. Hypothesis 3a, proposing that social support from the work domain relates more strongly to time-based WFC than social support from the home domain, was not supported.

The interaction effect between social support from supervisor and gender was marginally significant (β = -.15, p = .018). That is, men's time-based WFC tended to decreases when they received more social support from their supervisor, whereas women's time-based WFC tended to increase when they received more supervisory support. The regression equation is Y = 1.88 + (-0.09)(Gender) + 0.11 (Sup supervisor) + (- 0.19)(Gender x Sup supervisor) with female = 0 and male = 1. Hypothesis 5a, proposing that the sources of social support from the work domain are more strongly negatively related to men's WFC than to women's WFC, was supported. Hypothesis 6a, proposing that the sources of social support from the home domain are more strongly negatively related to women's WFC than to men's WFC, was not supported.

The background variables explained the largest part of the variability in time-based WFC (ΔR^2 = .27, p < .001). The social support variables did not explain a significant portion of the variability associated with time-based WFC (ΔR^2 = .02, *ns*). The proportion of additional variance explained by the interaction effect, after controlling for the background and social support variables was not significant (ΔR^2 = .01, *ns).*

Strain-based WFC

Table 3 shows the results of the regression analyses for strain-based WFC. Women reported more strain-based WFC than men (β = -.18, p < .01). Strain-based WFC was also affected by working hours (β = .30, p < .001), indicating that working more hours leads to more experienced conflict. None of the social support variables were significantly related to this form of WFC. Therefore hypothesis 3b, proposing that social support from the work domain relates more strongly to strain-based WFC than social support from the home domain, was not supported.

There were no significant interaction effects, indicating that social support does not affect men and women's strain-based WFC differently. Thus, for strain-based WFC, both hypothesis 5a and 6a were not supported.

The background variables explained the largest part of the variability in strain-based WFC (ΔR^2 = .09, p < .001). After controlling for the background variables, the social support variables explained 4% of the variance (ΔR^2 = .04, p < .001) in strain-based WFC.

Table 2. Sources of social support as predictors of time-based WFC ($N = 444$)

		Model 1			Model 2			Model 3		
	Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Step 1	Gender (0 = Female, 1 = Male)	-0.11	0.11	-0.06	-0.08	0.11	-0.05	-0.09	0.11	-0.05
	Age	-0.01	0.00	-0.06	-0.01	0.00	-0.07	-0.01	0.00	-0.08
	Education	0.01	0.03	0.01	0.01	0.03	0.02	0.01	0.03	0.02
	Working Hours	0.04	0.00	0.45***	0.04	0.00	0.45***	0.04	0.00	0.45***
	Spouse's Working Hours	0.01	0.00	-0.24***	-0.01	0.00	-0.23***	-0.01	0.00	-0.24***
Step 2	Support from Spouse				-0.13	0.06	-0.10	-0.13	0.06	-0.10
	Support from Relatives and Friends				0.02	0.06	0.02	0.01	0.06	0.01
	Support from Colleagues				-0.10	0.06	-0.08	-0.11	0.06	-0.09
	Support from Supervisor				0.01	0.05	0.01	0.11	0.07	0.12
Step 3	Gender x Support from Supervisor							-0.19	0.08	-0.15[#]
	R^2		0.27			0.29			0.30	
	Adjusted R^2		0.26			0.28			0.28	
	F for change in R^2		32.49***			2.91			5.69	

Note: All support variables were centered at their means. Nonsignificant interactions are not displayed. $^{**}p < .01$. $^{***}p < .001$. $^{\#}p = .018$

Table 3. Sources of social support as predictors of strain-based WFC ($N = 444$)

		Model 1			Model 2		
	Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Step 1	Gender (0=F, 1=M)	- 0.36	0.12	-0.21**	-0.32	0.12	-0.18**
	Age	- 0.01	0.01	-0.09	-0.01	0.01	-0.11
	Education	0.03	0.03	0.05	0.03	0.03	0.06
	Working Hours	0.03	0.00	0.32***	0.02	0.00	0.30***
	Spouse's Working Hours	-0.00	0.00	-0.05	-0.00	0.00	-0.05
Step 2	Support from Spouse				-0.12	0.06	-0.11
	Support from Relatives Friends				0.03	0.06	0.02
	Support from Colleagues				-0.14	0.07	-0.12
	Support from Supervisor				-0.08	0.05	0.09
Step 3	(No significant interactions)						
	R^2		0.09			0.13	
	Adjusted R^2		0.08			0.11	
	F for change in R^2		8.21***			5.55***	

Note: All support variables were centered at their means. As there were no significant interactions, the results of step 2 are displayed. **$p < .01$. ***$p < .001$.

Time-based FWC

Table 4 shows the results of the regression analyses for time-based FWC. None of the background variables were significantly related to time-based FWC. Of the social support variables, both social support from spouse and from colleagues were related negatively to time-based FWC ($\beta = -.25$, $p < .001$ and $\beta = -.21$, $p < .001$ respectively). An additional test comparing these two beta-weights showed that social support from spouse was not related more strongly to time-based FWC than social support from colleagues, $F(1, 434) = .21$, *ns*. Hence hypothesis 4a, proposing that social support from the home domain relates more strongly to time-based FWC than support from the work domain was not supported.

Furthermore, social support was not related to men and women's time-based FWC differently, as we found no significant interaction effect between each of the sources of social support and gender. Thus, for time-based FWC hypothesis 5a and 6a were not supported.

The sources of social support explained the largest part of the variability in time-based FWC ($\Delta R^2 = .10$, $p < .001$).

Table 4. Sources of social support as predictors of time-based FWC ($N = 444$)

		Model 1			Model 2		
	Variable	*B*	*SE B*	β	*B*	*SE B*	β
Step 1	Gender (0 = Female, 1 = Male)	- 0.21	0.11	-0.13	-0.18	0.11	-0.11
	Age	- 0.00	0.01	-0.01	-0.00	0.01	-0.01
	Education	0.05	0.03	0.08	0.05	0.03	0.09
	Working Hours	0.01	0.00	0.12	0.01	0.00	0.13
	Spouse's Working Hours	-0.00	0.00	-0.02	-0.00	0.00	-0.01
Step 2	Support from Spouse				-0.28	0.06	-0.25***
	Support from Relatives Friends				0.07	0.06	0.05
	Support from Colleagues				-0.23	0.06	-0.21***
	Support from Supervisor				0.08	0.05	0.09
Step 3	(No significant interactions)						
	R^2		0.02			0.12	
	Adjusted R^2		0.01			0.10	
	F for change in R^2		1.95			11.71***	

Note: All support variables were centered at their means. As there were no significant interactions, the results of step 2 are displayed. **$p < .01$. ***$p < .001$.

Strain-based FWC

Table 5 shows the results of the regression analyses for strain-based FWC. Working hours was positive related to strain-based FWC ($\beta = .17$, $p < .01$). Of the support variables, social support from spouse was related negatively to strain-based FWC ($\beta = -.22$, $p < .001$). As none of the support sources from the work domain were related significantly to strain-based-FWC, hypothesis 4b, proposing that social support from the home domain relates more strongly to strain-based FWC than support from the work domain was supported.

Social support from colleagues was related differently to men and women's strain-based FWC, as the interaction effect between social support from colleagues and gender was significant ($\beta = -.17$, $p < .01$). Women's strain-based FWC was hardly affected by social support from colleagues, whereas men's strain-based FWC decreased when they received more social support from their colleagues. The regression equation is Y = 1.67 + (-0.11)(Gender) + (-0.03)(Sup colleagues) + (- 0.23)(Gender x Sup colleagues) with female = 0 and male =1. This implies that, for strain-based FWC, hypothesis 5b, proposing that the sources of social support from the work domain are more strongly negatively related to men's FWC than to women's FWC, is supported. Hypothesis 6b, proposing that the sources of social support from the home domain are more strongly negatively related to women's FWC than to men's FWC, was not supported.

Table 5. Sources of social support as predictors of strain-based FWC ($N = 444$)

		Model 1			Model 2			Model 3		
	Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Step 1	Gender (0=F, 1=M)	- 0.16	0.10	-0.12	-0.12	0.10	-0.09	-0.11	0.09	-0.08
	Age	- 0.00	0.00	-0.04	-0.00	0.00	-0.04	-0.01	0.00	-0.05
	Education	-0.01	0.03	-0.02	-0.01	0.02	-0.01	0.00	0.02	-0.00
	Working Hours	0.01	0.00	0.17**	0.01	0.00	0.17**	0.01	0.00	0.17**
	Spouse's Working Hours	-0.01	0.00	-0.12	-0.01	0.00	-0.11	-0.01	0.00	-0.10
Step 2	Support from Spouse				-0.21	0.05	-0.22***	-0.21	0.05	-0.22***
	Support from Relatives and Friends				0.04	0.05	0.05	0.03	0.05	0.04
	Support from Colleagues				-0.14	0.05	-0.15	-0.03	0.07	-0.03
	Support from Supervisor				0.03	0.04	0.04	0.03	0.04	0.04
Step 3	Gender x Support from Colleagues							-0.23	0.09	-0.17**
	R^2		0.03			0.10			0.12	
	Adjusted R^2		0.02			0.08			0.09	
	F for change in R^2		2.60			8.04***			6.84**	

Note: All social support variables were centered at their means. Nonsignificant interactions are not displayed. **$p < .01$. ***$p < .001$.

After controlling for the background variables, the sources of social support explained 7% of the variability in strain-based FWC ($\Delta R^2 = .07$, $p < .001$). The interaction effect explained only a small portion of the variability in strain-based FWC ($\Delta R^2 = .01$, $p < .01$).

CONCLUSION AND DISCUSSION

The purpose of the present study was threefold. First, to examine gender differences in both time- and strain-based WFC and FWC. Second, to examine the relationship between work and non-work related sources of social support and time and strain-based WFC and FWC. And finally, to uncover gender differences regarding the relationship between sources of social support and work-family conflict.

Our findings revealed that, contrary to those reported by Carlson et al. (2000), men and women did not differ with regard to experienced time and strain-based FWC. Women only reported more strain-based WFC than men. This finding is in line with Wallace (1999) and Carlson et al. (2000). The difference in strain-based WFC may be related to the fact that men's and women's job performance is not valued alike. Heilman and Haynes (2005) showed that, despite clear evidence of women's prior work competence, when compared to men, women are devalued. Hence a woman may have to work harder in order to be valued the same as her male colleague, leading to more strain-based WFC.

The fact that most women were employed on a part-time basis (83% of the women in our sample work less than 38 hours per week), may explain why women did not report more FWC than men. Working part-time probably enables women to combine family responsibilities with work, as the majority of these part time working women (77%) indicated that they worked part time to combine work and family responsibilities. Carlson et al. (2000), who studied men and women employed on a full-time basis, did in fact find that women report more FWC than men, which strengthens our argument that working part-time seems to help women to combine work and family responsibilities and therefore to reduce FWC. Data on the task division in Dutch two-earner households (SCP, 2004, p.94) show that in all types of households the husband's participation in household work never exceeds 35%, demonstrating that women always do the largest part of household work. Our own data contain no information on the division of household work or home related responsibilities.

With regard to the relation between the sources of social support and work-family conflict, contrary to our expectations, we found that social support from colleagues relates to men and women's time-based FWC. Despite the general assumption that social support from the work domain is related to WFC, our findings do not support this. A possible explanation is that colleagues may stand in for each other when time is lacking, for example, by taking over some tasks to enable the other to leave earlier, knowing that the other will return the favor if needed. Moreover, social support from spouse was related to time and strain-based FWC, however, it was not related more strongly to time-based FWC than social support from

colleagues. Given these results, it is important for future research to further investigate how social support from one domain relates to work-family conflict in the other domain.

Findings also revealed that the relationship between social support and work-family conflict differs for men and women. Surprisingly, women did not benefit from social support from their supervisor and colleagues. On the contrary, their time-based WFC increased when they received social support from their supervisor. Their strain-based FWC was hardly affected by support from their colleagues. Men, on the other hand, did benefit from social support from both their supervisor and colleagues. Social support from colleagues decreased men's strain-based FWC. Support from supervisor decreased their time-based WFC.

A possible reason why women's time based WFC increased when they received social support from their supervisor may be that employees feel that they have to do something in return for being supported by their supervisor. This may lead to more time-based WFC for women, as most women work part-time which leaves hardly any room for additional tasks or for catching up on tasks that still need to be done.

Contrary to other studies (Elliott, 2003; Perrewé & Carlson, 2002), we did not find any gender differences regarding the relationship between social support from one's spouse or relatives and friends and work-family conflict. As Elliott (2003) found spousal support to correlate negatively with the amount of household chores one does, she concludes that "at least part of the effect of spousal support comes in the form of participation in housework" (pp. 176). As the majority of women in our sample worked part-time in order to be able to combine work and family tasks, they probably received less spousal support in the form of household work simply because they perform most tasks within the home domain.

Finally, it seems that different variables are important in relation to time and strain-based WFC and FWC. Working hours and working hours of the spouse were related to both forms of WFC, and not (or only marginally) to FWC. Regarding time and strain-based FWC, social support variables seemed most important, while the support variables were not related to time or strain-based WFC. A possible explanation for this difference may lie in the nature of the stressor. Recall that someone who experiences WFC may need more time to get all the work done on the job or may worry about getting the work done. Someone who experiences FWC may be missing work activities due to the amount of time spent on family responsibilities or may worry about family matters. In the case of FWC, we believe someone is more likely to ask for help, for example to look after a sick child, or to take over some of the family responsibilities than in case of WFC.

Strengths and limitations of the study

There are two major strengths of this study. First, our study provides a comprehensive picture of the relationship between social support and work-family conflict as it includes both directions of work-family conflict, i.e., WFC and FWC, and distinguishes between time and strain-based conflict as well as between home and work-related sources of social support.

Second, as this study was carried out among respondents with different jobs across various organizations, our data are not specific to a single occupation, but provide insight about the relationship between social support and work-family conflict, applicable to the working population in general.

Practical implications

We found that social support was only important with respect to reducing time and strain-based FWC, whereas one's own and one's spouse's working hours were important with respect to WFC. Therefore, for dual-earner policies to be successful, even more than emphasizing the different forms of work-family conflict, it is important to keep in mind that the relationship between various sources of social support and work-family conflict may vary. Most organizations focus on work-related variables in relation to WFC, while it seems worthwhile to consider home-related variables as well.

Moreover, it should be noted that, within the work domain, giving support to a male colleague or subordinate has other consequences than giving support to a female colleague or subordinate. Supervisors should not only be aware of these gender differences and diversity among their employees in general, but also be able to act in ways that are supportive without being counterproductive. It will be worthwhile for future research to examine these gender differences in more detail.

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Chapter 5

Individual and Crossover Effects of Work-to-Family Conflict and Family-to-Work Conflict on Health, Psychological Well-Being and Life Satisfaction in Dual-Earner Couples*

ABSTRACT

This study examined individual and crossover effects of work-to-family and family-to-work conflict on one's own and one's spouse's well-being among 164 dual-earner couples. Multiple regression analyses on three aspects of well-being: general health state, psychological well-being and life satisfaction, showed that women's family-to-work conflict was negatively related to their general health. Men and women's work-family conflict was negatively related to psychological well-being. Men's work-to-family conflict was negatively related to life satisfaction as well. For both men and women crossover effects of work-to-family conflict on their spouse's life satisfaction were found. We conclude that, in order to stay happy, women of a dual-earner couple have to face difficulties from the work and family domain, whereas men's well-being is mainly related to work-related factors.

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* van Daalen, G., Willemsen, T.M., & Haest, E. (2007). Individual and crossover effects of work-to-family conflict and family-to-work conflict on health, psychological well-being and life satisfaction in dual-earner couples.

INTRODUCTION

The traditional family, with the husband as the breadwinner and the wife as homemaker is no longer the dominant family type (SCP, 2006). Nowadays, it is more common that both spouses have a paid job, also when they have small children, hence both men and women have to find a balance between the demands of their job and the demands of their family life (Carlson, Brooklyn Derr, & Wadsworth, 2003; Cinamon & Rich, 2002; Duxbury & Higgins, 1991). The difficulties associated with combining work and family life is often called work-family conflict. A relatively large part of the working population with family responsibilities report that their work and family roles are intertwined (Frone, Russell, & Cooper, 1992a; Frone & Yardly, 1996), and thus as a result may experience work-family conflict (Parasuraman & Simmers, 2001; Voydanoff, 2002; Williams & Alliger, 1994).

Work-family conflict can have negative consequences for workers as well as for organizations (Duxbury & Higgins, 1991). According to a meta-analysis of Allen, Herst, Bruck and Sutton (2000) the negative consequences of work-family conflict can be organized in three categories. First, the work related consequences like job satisfaction, organizational commitment, turnover intention, and job performance. Second, the non-work related outcomes like marital satisfaction, and satisfaction with family and leisure time. Third, stress related outcomes such as burnout, depression, and physical complaints. Allen et al. (2000) concluded that work-family conflict can have serious consequences in all three categories, but the most consistent and strong relationships are found between work-family conflict and stress related outcomes.

Research into the relationship between work and family life has often focused on the negative consequences for individual employees (Westman & Piotrkowski, 1999). However, to what extent do these negative consequences of combining work and family life affect these employees' families? Does work-family conflict also affect their spouses? Spouses' experiences may influence the other because they both are part of the same social system (Parasuraman, Greenhaus, & Granrose, 1992). Because the family domain is a shared domain, someone's work-family conflict can influence one's spouse. Therefore, in addition to previous studies, the present study concerns couples by studying the effects of work-family conflict as a source of stress on the individual as well as on one's spouse. By taking the couple as the unit of analysis, crossover effects, that is, the transference of stress from one spouse to the other, can be studied (e.g., Bolger, DeLongis, Kessler, & Wethington, 1989; Gareis, Barnett, & Brennan, 2003; Hammer, Allen, & Grigsby, 1997).

Work-family conflict

Greenhaus and Beutell (1985) defined work-family conflict as "a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" (p. 77), such that participation in one domain becomes more difficult due to the demands of participation in the other domain and vice versa (Adams, King, & King, 1996; Greenhaus & Beutell, 1985).

Work-family conflict has been found to be bi-directional (Adams et al., 1996; Frone et al., 1992a; Gutek, Searle, & Klepa, 1991). That is, previous studies distinguished between work-to-family conflict (WFC) and family-to-work conflict (FWC). WFC occurs if the job negatively affects family life, FWC if family life negatively affects job fulfillment. Kossek and Ozeki (1998) found strong support for this bi-directional nature.

Frone et al. (1992a) described and tested a model of the antecedents and consequences of WFC and FWC. They argued that different stressors and consequences are relevant in the work domain and the family domain. However, problems in one domain probably affect functioning in the other domain, which in turn affects the domain where the problems originated. Tests of the model indeed demonstrate that work stressors directly result in stress on the job and indirectly, through WFC, in stress at home. Stressors at home result, through FWC, in job stress (Frone et al., 1992a).

Crossover

In addition to stress experienced by oneself, one may also be hindered by stress that is experienced by one's spouse, as stress can spread through crossover (Bolger et al., 1989). Generally, crossover effects involve an individual's reaction to stress experienced by someone whom the individual associates with (Westman & Etzion, 1995), or as Hammer, Bauer and Grandey (2003) put it "crossover effects involve the transmission of stress and strain between one member of a dyad to another" (p. 424). Three mechanisms may explain crossover (Westman & Vinokur, 1998). First, crossover effects can results from a direct transfer of stress from one individual to another. That is, crossover effects may occur between persons who are close, take care of each other, identify with each other and live together for a large part of their lives (Westman, Etzion, & Danon, 2001), such as e.g., two spouses. This explanation assumes that distress in one spouse can cause a sympathic reaction in the other, who will then experience distress as well. According to social learning theory, transfer of emotions is a conscious way of coping with information (Westman, 2001). Individuals imagine how they would feel if they were in the other person's place and thereby experience and share the other person's feelings. Rook, Dooley en Catalano (1991) report that men's job stressors negatively affected their wives emotional health. This suggest that a stressful event does not only negatively affect the psychological health of the individual experiencing the event, but also of close others, who are thus indirectly affected by the event. In addition to studies demonstrating one-way crossover effects there have been studies of crossover from

one spouse to the other and vice versa. Hammer at al. (1997) found crossover of work-family conflict from men to women and from women to men.

Second, crossover effects can result from a common stressor that affects stress in both spouses. In this case crossover of stress from one individual to the other is a spurious relation resulting from the fact that the common stressor influences both individuals. Westman and Etzion (1995; 1998) suggest that the crossover effect they found may result from common stressors, for which they did not control. Westman and Vinokur (1998) reported that negative common events affected the crossover process which enhanced both spouses' depression.

Third, crossover can be an indirect and active process that takes place through social interaction between two spouses. Here, an increase in distress in one spouse leads to a negative conflictuous interaction style towards the other spouse. The other spouse experiences this negative interaction process as stressful leading to an increase in his or her distress. Stressful circumstances can lead to frustration, which in turn can bring about hostile actions. Couples who are distressed do indeed show many negative interactions (Westman & Vinokur, 1998). The crossover process may be mediated through negative social interactions like social undermining, that is, showing negative affect and giving negative evaluations towards one's spouse, which increases the stress of both spouses. In addition to social undermining other mediating variables may exist like coping mechanisms, communication style, personal characteristics and social support (Westman, 2001).

It should be noted that these three mechanisms are hypothetical. In other words, there is no systematic and empirical approach that discriminates between the possible explanations of the crossover process (Westman, 2001). Hence, it is unclear how strain experienced by one spouse affects strain of the other spouse, and how work related stressors experienced by one spouse impair the well-being of the other spouse.

Despite the support found for the existence of crossover effects between spouses' work and family domains (Bakker, Demerouti, & Schaufeli, 2005; Bolger et al., 1989; Demerouti, Bakker, & Schaufeli, 2005; Gareis et al., 2003; Glass & Fujimoto, 1994; Hammer et al., 1997; Pittman, Solheim, & Blanchard, 1996; Westman, 2001; Westman & Etzion, 1995, 2005), to our knowledge, research regarding crossover effects of both directions of work-family conflict (i.e., WFC and FWC) between employed spouses is limited. The few studies that did include both directions of work-family conflict showed that not only WFC crosses over to the other spouse. For instance, Hammer et al. (2003), in a study on work-family conflict and work-related withdrawal behaviors, showed that husbands' FWC was related to wives' lateness, and that wives' FWC was related to husbands' interruptions at work and absence. No significant crossover effects of WFC on the three work withdrawal behaviors were found. In another study Hammer, Cullen, Neal, Sinclair and Shafiro (2005), showed that husbands' WFC negatively affected wives' depression.

Dual earners generally are assumed to be most likely to experience difficulties with combing work and family roles. Therefore, the present study uses data of 164 dual-earner couples and in line with the studies by Hammer et al. (2003; 2005) investigates individual and crossover effects of WFC and FWC, while controlling for individual predictors of stress.

Väänänen et al. (2004) showed that WFC and FWC are related differently to different indicators of well-being, showing that multiple aspects of well-being should be considered when studying well-being. Also, Danna and Griffin (1999) in their literature review on the conceptualization of health and well-being, conclude that well-being reflects more than merely physical, physiological and/or psychological indicators of health, but that it takes account of the "whole person", including context-free life experiences such as for instance life satisfaction (Danna & Griffin, 1999, p.364). Accordingly, the present study includes three aspects of general well-being: general health state, psychological well-being and life satisfaction.

In sum, work-family conflict is a common stressor for many people which has negative consequences for men and women, leading to impaired well-being (Allen et al., 2000; Frone, Russell, & Cooper, 1997). With respect to crossover effects between the spouses we assume a direct transfer of work-family conflict between the spouses, affecting each others well-being. As, spouses generally are very close, take care of each other, identify with each other and live together for a large part of their lives, it seems plausible that they experiences and share feelings of the other. Moreover, spouses share the home domain which probably makes it easier for them to empathize with the other spouse when he or she experiences work-family conflict. Especially, as work-family conflict is not restricted to the work or home domain, but stems from one domain and interacts with the other domain.

To examine the individual effects of one's own WFC and FWC on one's health, psychological well-being and life satisfaction, as well as the crossover effects of one's WFC and FWC on their spouse's health, psychological well-being and life satisfaction, we test the following hypotheses:

Hypothesis 1: Someone's WFC and FWC relates negatively to one's own general health (a), psychological well-being (b) and life satisfaction (c).

Hypothesis 2: In couples, the experience of WFC and FWC of one spouse relates negatively to his/her spouses' general health (a), psychological well-being (b) and life satisfaction (c), after controlling for the impact of his/her spouses' own WFC and FWC.

METHOD

Respondents and procedure

The data used in this study are part of a large research project on work-family conflict, social support, health and well-being. Hence some of the participants in the present study were also used in an earlier study regarding the effects of different sources of social support on health, psychological well-being and life satisfaction, however in that study the data never included two respondents from the same couple, while the present paper only includes couples' data.

To be able to study individual and crossover effects we used the couple as the unit of research. Respondents were 196 couples, who participated in a so-called telepanel; the CentERpanel, which consists of about 2000 Dutch households. Members of the CentERpanel complete a questionnaire every week (through the internet) and receive a small compensation for their participation. Topics vary each week. Before becoming a member of the CentERpanel, participants agree with the conditions of the panel and give permission to use their data for research purposes. To be a member of the panel, one does not need to have a personal computer with access to the internet. A household without internet access is supplied with a so-called set-top box with which questionnaires can be filled out using a television screen as a monitor.

To be included in the present study couples had to satisfy the following set of criteria: both respondents (a) had to have a paid job, (b) had to live together (cohabiting or married) and (c) had to be heterosexual. The final sample fulfilling these three criteria contained 164 couples (N = 328, 164 men and 164 women). The male respondents' age varied from 24 to 63 year, with a mean of 41 (SD = 9.02). The women's age varied from 24 to 59 year, with a mean age of 39 year (SD = 8.70). Of the men, 37% had higher education and 41% of the women. Most of the men (88%) worked fulltime, with a mean of 42 hours a week (SD = 7.94) while the majority of women (73%) worked part-time, with a mean of 28 hours a week (SD = 10.35). Sixty percent of the couples had one or more children.

Measures

General health. General health refers to performing, or being able to perform, bodily, social and work activities that are normal for healthy individuals (van Heck & Vingerhoets, 2001) and was measured by the 8-item Health State Scale by van Heck and Vingerhoets (2001). Two sample items are: "To what extent did your physical health or emotional problems hinder you in your daily activities last month, such as walking, climbing stairs, get yourself dressed, taking a bath, going to the bathroom?" and "Were you physically tired for several days in succession last month?" The response categories varied from (1) "not at all" to (5) "a great deal", or (1) "not at all true" to (5) "totally true", or (1) "never" to (5) "always". Responses

were reversed such that high scores indicate good general health. Cronbach's alpha of this scale was .87 for men and .85 for women.

Psychological well-being. Psychological well-being stands for subjective well-being, in which depression and negative feeling are important (van Heck & Vingerhoets, 2001) and was measured by the 5-item Psychological Well-Being Scale developed by van Heck and Vingerhoets (2001). For each item, respondents could indicate how they felt during the last month. Two sample items are: "Last month.....I had difficulties taking decisions", and "Last month.....I felt unhappy". Response categories were (1) "never" to (5) "always". Again, responses to negative formulated items were reversed such that higher scores reflect higher levels of psychological well-being. Cronbach's alpha of this scale was .82 for men and .80 for women.

Life satisfaction. Life satisfaction stands for an individual's possibilities to satisfy needs, wishes and desires and to participate in activities that lead to personal growth and self-realization (van Heck & Vingerhoets, 2001) and was measured by the 5-item Life Satisfaction Scale developed by van Heck and Vingerhoets (2001). Two sample items of this scale are: "To what extent are you satisfied with the circumstances you live in?" and "To what extent are you satisfied with your personal relationships. Response categories were (1) "not that satisfied" to (5) "extremely satisfied", or, (1) "not at all" to (5) "very". A high score on this scale indicated a high quality of life. Cronbach's alpha of this scale was .79 for both men and women.

Work-to-family conflict and family-to-work conflict. WFC and FWC were measured by the Work-Family Conflict Scale and the Family-Work Conflict Scale developed by Netemeyer, Boles and McMurrian (1996). Both scales were translated into Dutch using standard back-translation procedures. Each scale consisted of 5 items. Two sample items from the Work-Family Conflict Scale are: "Things I want to do at home do not get done because of the demands my job puts on me" and "Due to work-related duties, I have to make changes to my plans for family activities". Two sample items from the Family-Work Conflict Scale are: " I have to put off doing things at work because of demands on my time at home" and "My home life interferes with my responsibilities at work such as getting to work on time, accomplishing daily tasks, and working overtime". The response categories of both scales were on a 5-point scale from (1) *totally disagree* tot (5) *totally agree*. Higher scores on both the Work-Family Conflict Scale and the Family-Work Conflict Scale indicate higher levels of conflict. Cronbach's alpha of the Work-Family Conflict Scale in our study was .85 for men and .86 for women, and of the Family-Work Conflict Scale .92 for both men and women.

Background variables. Age, level of education, number of children in the household and number of actual working hours per week were used as background variables. These variables are expected to affect the relationship between WFC and FWC and the dependent variables (Allen et al., 2000). Age, number of children in the household and number of actual working hours per week were measured as continuous variables. Level of education was

measured with one item with six categories: (1) grade school, (2) preliminary vocational school, (3) grammar school, (4) secondary vocational training, (5) higher vocational training, (6) university.

Data analysis

We tested individual and crossover effects of WFC and FWC within dual-earner couples using multiple regression analyses. Zero-order correlations were computed to obtain a global impression of possible relations between the study variables. Paired t-tests were performed to test for significant gender differences between the variables. To test the hypotheses for each outcome variable; general health, psychological well-being and life satisfaction, a series of multiple regression analyses were conducted separately for both genders. For each dependent variable, the background variables were entered at the first step of the regression analyses. In the second step one's own WFC and FWC were added. To examine crossover effects, one's spouse's WFC and FWC were added in the third and final step of the analyses (see also Bakker et al., 2005; Hammer et al., 2005).

RESULTS

Table 1 shows the means, standard deviations and correlations among study variables for husbands and wives. Regarding the effects of WFC and FWC on one's own health, well-being and life satisfaction, we found that WFC and FWC of men was negatively related to psychological well-being and life satisfaction. For women the same relationships were found as well as a negative correlation with health. As for the crossover effects between one's WFC and FWC conflict and one's spouses health, well-being and life satisfaction, we found that WFC of men was negatively correlated with their wife's life satisfaction. Women's WFC and FWC correlated negatively with psychological well-being and life satisfaction of their husband.

Gender differences

With regard to the dependent variables men felt more healthy than women (M_{men} = 4.34, SD = .61; M_{women} = 4.07, SD = .61,), t (163) = 4.53, p < .001, and men reported higher psychological well-being than women (M_{men} = 4.35, SD = .56; M_{women} = 4.15, SD = .55,), t (163) = 3.90, p < .001. With regard to WFC and FWC, both men and women reported more WFC than FWC (WFC M_{men} = 2.27, SD = .79 and FWC M_{men} = 1.84, SD = .69), t (163) = 8.08, p < .001 for men and (WFC M_{women} = 2.23, SD = .75 and FWC M_{women} = 1.79, SD =.66), t (163) = 8.73, p < .001 for women. No significant gender differences were found regarding the amount of WFC (M_{men} = 2.27, SD = .79 and M_{women} = 2.23, SD = .75), t (163) = .58, *ns* and FWC (M_{men} = 1.84, SD = .69 and M_{women} = 1.79, SD = .66, t (163) = .89, *ns*.

Table 1. Means, standard deviations, and correlations between variables for husbands and wives ($N = 164$ couples)

	Variables	*M*	*SD*	1	2	3	4	5	6	7	8	9
1	Age man	41.24	9.02	–								
2	Age women	38.90	8.70	.91**	–							
3	Working Hours man	41.60	7.94	-.05	-.11	–						
4	Working Hours woman	28.11	10.35	-.06	-.01	.02	–					
5	Children in Household	1.20	1.12	-.03	-.03	.05	-.45**	–				
6	Level of Education man	3.91	1.29	-.09	-.01	.08	.20**	-.02	–			
7	Level of Education woman	4.01	1.27	-.25**	-.17*	.08	.36**	-.09	.41**	–		
8	WFC man	2.27	0.80	-.06	-.05	.30**	.01	.09	.09	.05	–	
9	WFC woman	2.23	0.75	.05	.10	.02	.32**	-.01	-.00	.12	.24**	–
10	FWC man	1.84	0.69	-.21**	-.21**	.17*	-.01	.09	.14	.08	.59**	.19*
11	FWC woman	1.79	0.66	-.05	.00	.02	-.01	.13	.01	.14	.20*	.59**
12	General Health man	4.34	0.61	-.02	.01	.17*	.07	-.12	.09	.08	-.12	-.06
13	General Health woman	4.07	0.61	.02	.02	.03	-.10	.21**	-.02	-.00	.01	-.18*
14	Psychological Well-Being man	4.35	0.55	.05	.08	.09	.03	-.10	-.06	.02	-.28**	-.18*
15	Psychological Well-Being woman	4.15	0.55	-.09	-.07	.01	.04	-.04	.01	-.06	-.10	-.29**
16	Life Satisfaction man	3.65	0.55	.10	.10	-.01	-.09	-.11	-.09	-.07	-.38**	-.35**
17	Life Satisfaction woman	3.82	0.62	-.10	-.09	.06	.05	.01	.12	.16*	-.20**	-.22**

Note: WFC = Work-to-Family Conflict and FWC = Family-to-Work Conflict; $^{*}p < .05$, $^{**}p < .01$.

Table 1. Continued

	Variables	*M*	*SD*	10	11	12	13	14	15	16	17
10	FWC man			–							
11	FWC woman			.26**	–						
12	General Health man			-.07	-.10	–					
13	General Health woman			.02	-.23**	.19*	–				
14	Psychological Well-Being man			-.21**	-.19*	.53**	.20*	–			
15	Psychological Well-Being woman			-.11	-.26**	.10	.39**	.29**	–		
16	Life Satisfaction man			–.22**	-.26**	.35**	.13	.49**	.19*	–	
17	Life Satisfaction woman			.26**	-.21**	.16*	.28**	.20*	.46**	.42**	–

Note: WFC = Work-to-Family Conflict and FWC = Family-to-Work Conflict; *$p < .05$, ** $p < .01$.

Individual effects and crossover effects

General health

Results for general health are shown in Table 2. Of the background variables only the number of working hours was positively related to men's health ($\beta = .22$, $p < .05$): the more hours men worked, the better their health. For women, only the number of children in the household was positively related to women's general health ($\beta = .24$, $p < .01$): the more children in the household, the better women's health. With respect to one's own WFC and FWC, only women's own FWC was negatively related to their health ($\beta = -.25$, $p < .05$), for men no significant relations were found. Thus, hypothesis 1a, stating that one's own WFC and FWC negatively relates to one's general health, was partially confirmed for women. For men hypothesis 1a was rejected. As there were no significant relations between the spouse's WFC and FWC and the other spouse's health, hypothesis 2a, was rejected for both men and women as well.

Table 2. Multiple regression analysis for husbands and wives' general health

Husbands									
	Model 1			Model 2			Model 3		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Age	-0.00	0.01	-0.01	-0.00	0.01	-0.01	-0.00	0.01	-0.01
Education	0.04	0.04	0.08	0.04	0.04	0.09	0.04	0.04	0.09
Working Hours	0.01	0.01	0.17*	0.02	0.01	0.23**	0.02	0.01	0.22**
# Children	-0.08	0.04	-0.13	-0.07	0.04	-0.12	-0.06	0.04	-0.11
Own WFC				-0.14	0.08	-0.18	-0.14	0.08	-0.18
Own FWC				-0.00	0.09	-0.00	0.01	0.09	0.01
Spouse's WFC							0.01	0.08	0.02
Spouse's FWC							-0.07	0.09	-0.07
R^2		0.05			0.08			0.09	
F		2.23			2.55			0.31	
Wives									
	Model 1			Model 2			Model 3		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Age	0.00	0.01	0.03	0.00	0.01	0.05	0.00	0.01	0.06
Education	0.01	0.04	0.03	0.03	0.04	0.07	0.03	0.04	0.07
Working Hours	-0.00	0.01	-0.02	0.00	0.01	-0.00	0.00	0.01	-0.00
# Children	0.11	0.05	0.20*	0.13	0.05	0.24**	0.13	0.05	0.24**
Own WFC				-0.03	0.09	-0.04	-0.04	0.09	-0.05
Own FWC				-0.23	0.09	-0.25*	-0.24	0.09	-0.26*
Spouse's WFC							0.00	0.07	0.00
Spouse's FWC							0.07	0.09	0.08
R^2		0.04			0.12			0.12	
F		1.81			6.31**			0.53	

Note: # Children refers to number of children in the household. WFC = Work-to-Family Conflict and FWC = Family-to-Work Conflict. *$p < .05$, **$p < .01$, ***$p < .001$.

After controlling for the background variables, one's own WFC and FWC did not explain a significant portion of the variability in men's health (ΔR^2 = .03, *ns*). The addition of one's own WFC and FWC variables only led to an increase of explained variance in women's health (ΔR^2 = .08, p < .01 for women). For both men and women the spouse's WFC and FWC variables did not explain a significant portion of the variability associated with general health (ΔR^2 = .01, *ns* for men and ΔR^2 = .00, *ns* for women).

Psychological well-being.

Results for psychological well-being are shown in Table 3. Of the background variables, for men the number of working hours was positively related to psychological well-being (β = .20, p < .05). Men's own WFC was negatively related to their psychological well-being (β = -.30, p < .01). Women's own WFC was related negatively to their psychological well-being (β = -.27, p < .01) as well. Both for men and women, experiencing more WFC meant less psychological well-being, while their FWC did not relate to psychological well-being. Hypothesis 1b, assuming that one's WFC and FWC is negatively associated with one's own psychological well-being was thus only supported for WFC. As there were no significant relations between the spouse's WFC and FWC and the other spouse's well-being, hypothesis 2b, was rejected for both men and women.

After controlling for the background variables, one's own WFC and FWC explained a significant part of the variability in both men and women's well-being (ΔR^2 = .09, p <.001 for men, and ΔR^2 = .10, p <.001 for women). Adding the spouse's WFC and FWC variables did not significantly improve the model (ΔR^2 = .02, *ns* for men and ΔR^2 = .00, *ns* for women).

Table 3. Multiple regression analysis for husbands and wives' psychological well-being

	Husbands								
	Model 1			Model 2			Model 3		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Age	0.00	0.01	0.04	0.00	0.01	0.03	0.00	0.01	0.03
Education	-0.03	0.04	-0.06	-0.02	0.03	-0.04	-0.02	0.04	-0.04
Working Hours	0.01	0.01	0.10	0.01	0.01	0.20*	0.01	0.01	0.19*
# Children	-0.05	0.04	-0.11	-0.04	0.04	-0.09	-0.04	0.04	-0.08
Own WFC				-0.21	0.07	-0.30**	-0.19	0.07	-0.28**
Own FWC				-0.04	0.08	-0.05	-0.02	0.08	-0.03
Spouse's WFC							-0.05	0.07	-0.07
Spouse's FWC							-0.06	0.08	-0.08
R^2		0.03		0.12				0.14	
F		1.06		8.62***				1.42	

Table 3. Continued

	Wives								
	Model 1			Model 2			Model 3		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Age	-0.01	0.01	-0.09	-0.00	0.01	-0.05	-0.00	0.01	-0.06
Education	-0.04	0.04	-0.10	-0.04	0.04	-0.09	-0.04	0.04	-0.08
Working Hours	0.00	0.01	0.07	0.01	0.01	0.18	0.01	0.01	0.18
# Children	-0.01	0.04	-0.02	0.02	0.04	0.05	0.02	0.04	0.05
Own WFC				-0.20	0.08	-0.27**	-0.20	0.08	-0.27*
Own FWC				-0.08	0.08	-0.10	-0.07	0.08	-0.09
Spouse's WFC							0.01	0.07	0.01
Spouse's FWC							-0.04	0.08	-0.05
R^2		0.02			0.12			0.12	
F		0.65			9.12***			0.18	

Note: # Children refers to number of children in the household. WFC = Work-to-Family Conflict and FWC = Family-to-Work Conflict. *$p < .05$, **$p < .01$, ***$p < .001$.

Life satisfaction.

Results for life satisfaction are shown in Table 4. For men, none of the background variables were related to life satisfaction, whereas women's level education was related positively with their life satisfaction ($\beta = .17$, $p < .05$), that is, women with a higher education reported more life satisfaction than women with lower levels of education. With respect to one's own WCF and FWC, only men's WFC was related negatively to men's life satisfaction ($\beta = -.43$, $p < .001$). Neither for men nor women a significant relation was found between their own FWC and their life satisfaction. This implies that hypothesis 1c, that one's own WFC and FWC negatively relates to one's own life satisfaction was only partially supported for men and rejected for women. For both men and women, one's spouse's WFC was related negatively to the other spouse's life satisfaction ($\beta = -.27$, $p < .01$ for men and $\beta = -.19$, $p < .05$ for women). Such that as one's spouse experienced more WFC, both men and women reported less life satisfaction. FWC of one's spouse did not relate to other spouse's life satisfaction. Therefore hypothesis 2c, that one's WFC and FWC is negatively associated to his or her partner's life satisfaction was only partially supported.

After controlling for the background variables, one's own WFC and FWC explained a significant proportion of the variance in life satisfaction ($\Delta R^2 = .15$, $p < .001$ for men, and $\Delta R^2 = .07$, $p < .01$ for women). The proportion of additional explained variance explained by the spouse's WFC and FWC variables, after controlling for one's own WFC and FWC and the background variables only raised the proportion of explained variance in men's life satisfaction ($\Delta R^2 = .07$, $p < .01$ for men, and $\Delta R^2 = .03$, *ns* for women).

Table 4. Multiple regression analysis for husbands and wives' life satisfaction

	Husbands								
	Model 1			Model 2			Model 3		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Age	0.01	0.01	0.09	0.01	0.01	0.09	0.01	0.00	0.11
Education	-0.04	0.04	-0.09	-0.03	0.03	-0.07	-0.03	0.03	-0.07
Working Hours	0.01	0.01	0.01	0.01	0.01	0.13	0.00	0.01	0.11
# Children	-0.06	0.04	-0.11	-0.04	0.04	-0.09	-0.05	0.04	-0.09
Own WFC				-0.30	0.07	-0.43***	-0.26	0.06	-0.37***
Own FWC				0.04	0.07	0.05	0.06	0.07	0.08
Spouse's WFC							-0.20	0.07	-0.27**
Spouse's FWC							-0.03	0.07	-0.04
R^2		0.03			0.18			0.25	
F		1.24			14.01***			7.97**	
	Wives								
	Model 1			Model 2			Model 3		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Age	-0.00	0.01	-0.06	-0.01	0.01	-0.04	-0.00	0.01	-0.04
Education	0.07	0.04	0.14	0.08	0.04	0.17*	0.08	0.04	0.17*
Working Hours	0.00	0.06	0.01	0.01	0.01	0.08	0.01	0.01	0.08
# Children	0.01	0.05	0.02	0.04	0.05	0.07	0.05	0.05	0.08
Own WFC				-0.15	0.09	-0.19	-0.12	0.09	-0.15
Own FWC				-0.12	0.09	-0.13	-0.13	0.09	-0.13
Spouse's WFC							-0.15	0.08	-0.19*
Spouse's FWC							0.05	0.09	0.06
R^2		0.03			0.10			0.13	
F		1.18			6.46**			2.32	

Note: # Children refers to number of children in the household. WFC = Work-to-Family Conflict and FWC = Family-to-Work Conflict. *$p < .05$, **$p < .01$, ***$p < .001$.

DISCUSSION

In the present study we examined the individual and crossover effects of both directions of work-family conflict, i.e., WFC and FWC, on three indicators of well-being among 164 dual-earner couples.

Individual effects

Our results suggest that men experience more negative individual consequences of WFC than women. A higher level of WFC was associated with less psychological well-being and less life satisfaction in men, while in women only the association with psychological well-being was found. Men and women experienced about the same amount of WFC. Men who worked more hours reported better health and psychological well-being. It seems that the various aspects of health in men are mainly affected by factors originating in the work domain, like WFC and working hours. A possible explanation is that social expectations make that

influences from the work domain are more important than influences from the family domain for men's feelings and satisfaction with life. Sekaran (1983) suggested that men are socialized in such a way that they think that their job or career is what makes them feel happy and gives them self esteem.

Women seem to experience more negative consequences of FWC than men, because they report worse health as they experience more FWC while men experience no consequence at all of FWC in our study. Men and women reported experiencing about the same amount of FWC. Women may experience more negative consequences from FWC than men because women who decided to have a job, may feel that they have failed if they cannot very well combine their family and the work roles. Again, this may have to do with different role expectations for men and women. Traditionally, women's family role implied that she mainly had responsibilities for running the household and the family, whereas men's family role mainly implied being the breadwinner without many further household or family responsibilities (Barnett & Baruch, 1987). Nowadays, women with a job probably are still considered the ones who are primarily responsible for the family domain. As a consequence, when they struggle to combining work and family tasks this can be seen as proof that women should not have a paid job outside the home, causing more feelings of failure in women than in men. These experiences of failure in turn may bring about more negative consequences of FWC in women.

Crossover effects

The present study found partial support for crossover effects of WFC and FWC. We did not find a crossover effect of FWC on any of one's spouses' well-being measures. Also for WFC we did not find a crossover effect on one's spouse's health and psychological well-being. However, experiencing WFC did negatively affect one's spouse's life satisfaction. This crossover effect was found for both spouses, that is, we found a husband-to-wife as well as a wife-to-husband effect. This result is in accordance with results of Westman and Etzion (1995) who reported crossover of burnout from men to women and vice versa. Westman and Vinokur (1998) also reported crossover of depression from men to women and from women to men. A possible explanation for finding so few crossover effects may be that not all couples are equally vulnerable to transfer of stress, as this is dependent upon their feelings of empathy towards each other. Rook et al. (1991) reported that in their study the quality of the relation seemed to moderate the transfer process of stress. Spouses with a close and harmonious relationship may suffer most from their spouse's distress. Moreover, spouses with a less close and harmonious relationship may feel less empathy and therefore experience fewer consequences of their spouse's distress. In future research of crossover effects it is advisable to include indicators of the quality of the relation as well as of the empathy towards the spouse as moderating variables. It may also be important not only to study direct crossover (as we did in this study) and indirect crossover (taking into account moderating or

mediating factors like quality of the relation) but also crossover caused by a common stressor. Westman and Vinokur (1998) demonstrated that the association of depressive symptoms within couples was mainly caused by common stressors and by indirect crossover through negative social interaction.

In our study both men and women reported more WFC than FWC and therefore more individual and crossover effects of WFC may have been found than of FWC. Other studies also report more WFC than FWC (Frone, Russell, & Cooper, 1992b). This may relate to Pleck's (1977) suggestion that the boundaries between work and family are asymmetrically permeable, and that gender differences occur in this asymmetrical permeability. The latter suggestion was tested by Frone et al. (1992b) who concluded that these boundaries were indeed asymmetrically permeable, i.e., work more easily interferes with family life than the other way around. However, no gender differences in this permeability were found. In our study, an additional explanation of the fact that women experience more WFC than FWC refers to type of employment. It is quite possible that women who used to experience much FWC choose to work part-time in order to be better able to combine work and family demands. Additional analyses of the available data showed that 81% of women who worked part-time indicated that they did so to combine work and family tasks.

Limitations and conclusions

Some outcomes of this study that are not in accordance with previous research may be due to the design of this study, which has some limitations. First, our study was cross-sectional, which makes it impossible to make conclusions about causal relations, even if some cause-effect sequences may seem theoretically more plausible than others. Longitudinal research, with measures of work-family conflict variables and of various well-being measures at a series of time points would be preferable. Second, we only used self-report data, which may lead to data contamination due to common method variance. However, several studies have shown common method variance not to be as problematic as once thought (Semmer, Zapf, & Greif, 1996; Spector, 1992). Third, respondents may have self-selected, that is, people who experience large amounts of stress at home and on the job probably did not volunteer to take part in the telepanel. This may have led to less variance in the variables used in this study. Fourth, we measured how individuals experience their own WFC and FWC and then we studied crossover effects on their spouses. However, we did not ask the spouses themselves how they experienced their spouse's WFC and FWC. There may be a difference in someone's perception of their own WFC and FWC and the perception of his or her spouse regarding these same conflict processes. Finally, we did not measure in any way how many hours someone spent on household tasks, we only asked for working hours. However, time spent on household tasks may also affect the relation between work-family conflict variables and well-being.

Nevertheless, this study contributed to the existing literature in two ways. First, we demonstrated that WFC and FWC is related to different aspects of well-being in a single study. Considering well-being as a multidimensional concept proved fruitful, because WFC and FWC had different consequences for different aspects of well-being. Second, we found not only individual effects of WFC and FWC but also crossover effects. Thus, not only individuals themselves felt worse because of their WFC and FWC, but their spouses too.

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Chapter 6

Emotional Exhaustion and Mental Health Problems among Employees doing "People Work": The Impact of Job demands, Job Resources and Family-to-Work Conflict*

ABSTRACT

This study investigates the relationship between four job characteristics and family-to-work conflict on emotional exhaustion and mental health problems. Multiple regression analyses were performed using data from 1008 mental health care employees. Separate regression analyses were computed for high and low patient interaction jobs. Different job characteristics as well as family-to-work conflict were associated with emotional exhaustion and mental health problems in each job type. The relationship between family-to-work conflict and emotional exhaustion was mitigated by social support from colleagues for those who worked in low patient interaction jobs. We conclude that, in addition to general and specific stressors, it is worthwhile to include home-related stressors that interfere with the work domain in stress research.

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INTRODUCTION

Work stress is one of the most prevalent health problems of these days (Paoli & Merllié, 2000). Burnout is often used to characterize a reaction to prolonged work stress (Greenglass & Burke, 2003), especially feelings of emotional exhaustion, which are believed to be at the core of burnout (Cordes & Dougherty, 1993). Initially, the concept of burnout was developed to explain the longer-term process of chronic stressors leading to occupational stress resulting in the inability to cope with one's work , both psychologically and emotionally, among employees doing "people work" of some kind (Maslach, 1982; Maslach & Schaufeli, 1993).

As the concept of burnout was originally restricted to the human service sector, doing people work, i.e., "processing" people, rather than things or information, was considered a prerequisite for burnout (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). However, burnout occurs in occupations outside the service sector as well (Buunk, de Jonge, Ybema, & de Wolff, 1998; de Jonge & Schaufeli, 1998; Demerouti et al., 2001). As the primary tasks of these jobs do not involve people work, the current opinion is that also commonly found job characteristics that are not specifically related to people work may affect burnout, especially feelings of emotional exhaustion (Demerouti et al., 2001).

Job characteristics that seem important in this respect are, on the one hand, job demands, (e.g., workload and time pressure) and on the other hand, job resources (e.g., autonomy and social support from colleagues). Jobs with high demands and few resources are found to be detrimental to employees' physical and mental health, especially in combination with poor rewards (Bakker, Demerouti, & Schaufeli, 2003; Calnan, Wainright, & Almond, 2000; Heuven & Bakker, 2003; van Vegchel, de Jonge, Meijer, & Hamers, 2001). For instance, De Jonge, Bosma, Peter, and Siegrist (2000), found an elevated risk of emotional exhaustion for employees with high job demands and low job control of about eleven times compared with employees with low demands and high control. Also Demerouti et al. (2001) among three different occupational groups - human services, transport, and industry - , found that job demands affected emotional exhaustion.

In addition to these commonly found job characteristics that may affect employees working in all types of jobs, emotional demands have been found to be specific for those working in human services (Borritz et al., 2005; Söderfeldt et al., 1996), as it is more complicated to work with and for people than with inanimate objects (de Jonge & Dormann, 2003). Therefore, de Jonge and Dormann (2003) proposed that in studies of stress it is important to take the amount as well as the nature of interaction work performed in jobs into account, especially in the human service sector.

In the present study we focus on mental health care organizations, and distinguish between employees with high and low levels of interaction with patients in their job (referred to as high patient interaction (HPI) jobs and low patient interaction (LPI) jobs). Employees with high levels of interaction with patients in their jobs are those employees whose primary

task is to alter patients either physically or psychologically. Employees with low levels of interaction with patients in their jobs are those who, although not primarily involved with patients, perform person-related tasks that require (some) interaction with patients, like e.g., secretaries or receptionists.

Not all stress experienced on the job originates in the workplace; it may also be related to stress at home (Greenhaus & Parasuraman, 1999; Hammer, Saksvik, Nytro, Torvatn, & Bayazit, 2004). A home domain-related stressor, that many employees experience from time to time, is family-to-work conflict (Behson, 2002). Family-to-work conflict occurs if demands from the home and work domain are incompatible such that participation in the work domain becomes more difficult due to the demands of participation in the home domain (Frone, Yardly, & Markel, 1997; Greenhaus & Beutell, 1985; Greenhaus & Parasuraman, 1999; Gutek, Searle, & Klepa, 1991). Not only have family and home demands been found predictive of daily distress (Almeida & Kessler, 1998), consequences of family-to-work conflict also have been found detrimental for employees' mental and physical health (Grzywacz & Bass, 2003; Torkelson & Muhonen, 2003). Adverse (mental) health outcomes associated with family-to-work conflict are psychosomatic complaints and medication use (Burke & Greenglass, 1999), depression and poor physical health (Frone, Russell, & Barnes, 1996; Frone, Russell, & Cooper, 1997), and hypertension (Frone, Russell et al., 1997). Although family-to-work conflict originates in the home domain, generally it affects the work domain negatively, as employees either worry about concerns at home while at work, or simply are in lack of time. Therefore, it is important to take family-to-work conflict into account in a study concerning job stress and employee health.

The aim of the present study is threefold. First, we examine how four job characteristics (i.e., two job demands and two job resources) are related to emotional exhaustion and mental health problems of employees working in HPI jobs and employees in LPI jobs. Second, we examine whether family-to-work conflict is related to emotional exhaustion and mental health problems after controlling for workload, emotional demands, autonomy and social support from colleagues. Finally, in addition to the direct effects of the job characteristics and family-to-work conflict, we examine whether the job characteristics and family-to-work conflict have a multiplicative interaction effect on emotional exhaustion and mental health problems.

Workload, social support and autonomy generally are found predictive of occupational burnout and health symptoms among employees in various occupations (Muhonen & Torkelson, 2003). Therefore, we expect these job characteristics to be related to emotional exhaustion and mental health problems of employees in both HPI and LPI jobs. In line with previous research, we expect workload to be harmful for employee health and well-being. Social support and autonomy, on the other hand, are expected to improve the health and well-being of employees. Therefore, we hypothesize that workload is related positively to

emotional exhaustion and mental health problems (hypothesis 1a), and that autonomy and social support from colleagues are related negatively to both health outcomes (hypothesis 1b).

With regard to emotional demands, we expect that they may affect the health of employees in both job types, as both employees in HPI and LPI jobs are confronted with the behavior characteristics of others (e.g., aggressive or irritating behaviors). As emotional demands, like workload, lead to diminished health and well-being (de Jonge, Mulder, & Nijhuis, 1999; Peeters & Le Blanc, 2001), we hypothesize that emotional demands are positively related to emotional exhaustion and mental health problems for employees working in HPI jobs as well as for those in LPI jobs (hypothesis 1c).

Previous research found family-to-work conflict detrimental to one's (mental) health (Grzywacz & Bass, 2003; Torkelson & Muhonen, 2003). Moreover, employees doing people work may be more vulnerable than other employees to stress resulting from the demands of their work and family roles, especially when both roles involve a high degree of emotion management (Wharton & Erickson, 1993). So, especially for types of jobs that are characterized by high levels of emotion management, not only work-related stressors but home-related stressors should be included as well. Hence, we hypothesize that (strain-based) family-to-work conflict is related positively to emotional exhaustion and mental health problems (hypothesis 2).

In job stress research, it is generally assumed that job resources may buffer the detrimental effect of job demands on health-related outcomes (Bakker, Demerouti, & Verbeke, 2004; Demerouti et al., 2001; Karasek & Theorell, 1990; Siegrist, 1996). Recently, van Vegchel, de Jonge & Landsbergis (2005) demonstrated the plausibility of this multiplicative interaction or buffer effect between job demands and job resources in relation to work-related strain. In addition to previous stress research, which focused on job-related demands, we examine the multiplicative interaction between two job resources and a home-related demand; family-to-work conflict. This interaction effect moderates the relationship between the job resources (i.e., autonomy and social support) and family-to-work conflict, such that high levels of resources prevent the occurrence of emotional exhaustion and mental health problems despite high levels of family-to-work conflict. So, the relationship between family-to-work conflict and feelings of emotional exhaustion and mental health problems will be particular strong when autonomy and social support are low. Accordingly, we expect that the job resources (autonomy and social support from colleagues) decrease the assumed negative relation between family-to-work conflict and emotional exhaustion and mental health problems (hypothesis 3a).

In job stress research it is not common to examine whether job demands strengthen each other and hence intensify their detrimental consequences for employee health and well-being. According to Hockey's (1997) cognitive-energetic framework, people use active compensatory and control processes to cope with disruptions in order to reach their primary task. Hockey argues that, especially in cases of high demands, it is hard for employees to

cope. Because the work environment typically encourages a direct coping style that leaves (too) little opportunity for recovery (Hockey, 1997). Extending this line of reasoning to our study, we believe that employees who are confronted with high demands from their work on a daily basis, such as mental health care workers, are at risk when confronted with demands from the home domain. It is likely that these employees can not recovery fully, because of the demands from their job. Accordingly, there is no room for compensation between the two domains suggesting that the demands from both domains strengthen each other. Therefore we expect that the job demands (workload and emotional demands) increase the assumed negative relation between family-to-work conflict and emotional exhaustion and mental health problems (hypothesis 3b).

Prior to these issues, we test the assumption that employees working in HPI jobs report more emotional demands than employees working in LPI jobs, and examine differences in emotional exhaustion and mental health problems between employees in the two job types.

METHOD

Sample and procedure

Data were obtained from employees of 10 Dutch mental health care organizations. Questionnaires were sent to all employees (n=2463) within these organizations. A total of 1650 employees returned the questionnaire (response rate 67%). For the present study we only selected respondents who did people work. That is, respondents had to be working in jobs that were primarily directed at modifying patients either physically or psychologically, (referred to as HPI jobs), or in jobs that, although not primarily concerned with the interaction with patients, some interaction was involved (referred to as LPI jobs). A Total of 1223 respondents met these inclusion criteria; 916 respondents worked in HPI jobs and 307 in LPI jobs. Listwise exclusion of missing data from all variables (dependent, independent and background) resulted in a final sample of 1008 respondents. About equal percentages of respondents were lost from both job types, i.e., HPI jobs 17% and LPI jobs 20%.

Thus, of the 1008 respondents, 762 respondents worked in HPI jobs (76%), and 246 in LPI jobs (24%). Respondents working in HPI jobs were psychiatrists, psychologists, psychotherapists, nurses, social workers, physicians or other jobs involving patients. Respondents working in LPI jobs were secretaries, receptionists or other supporting staff employees.

Most respondents of the total final sample were women (71%). The age range was 21 to 64 years and the mean age was 39.5 years. On average, respondents worked 29 hours per week with a range of 8 to 40 hours per week (SD = 6.9). Average job tenure was 12 years (SD = 8.8). Of the respondents working in HPI jobs 10% had an academic degree or completed some form of higher (55%) or secondary vocational education (27%). Most of the respondents

working in LPI jobs completed either a secondary (25%) or higher vocational education (28%)[4].

Measures

Dependent variables

Emotional exhaustion was measured by a subscale of the UBOS (Schaufeli & van Dierendonck, 1994), a Dutch version of the Maslach Burnout Inventory (MBI) (Maslach & Jackson). This scale consists of 5 items, each with a 7-point rating scale ranging from 1, 'never', to 7, 'always'. A sample item is: 'I feel mentally exhausted due to my work'. Reliability and construct validity of the Dutch version are comparable with the original American version (Schaufeli & van Dierendonck, 1994, 2001). Moreover, the UBOS has been used in many other Dutch studies (Bakker, Demerouti, & Schaufeli, 2002; Demerouti, Bakker, & Bulters, 2004; Schaufeli & Bakker, 2004). In the present study the Cronbach alpha was .87.

Mental health problems were measured with a scale based on the Four Dimensional Symptom Questionnaire (4DSQ) (Terluin, 1996). The original questionnaire measures four dimensions of common mental health problems: distress, depression, anxiety and somatisation. For the present study the questionnaire was adapted and shortened to a single scale. All somatisation items were dropped, so the final scale covers distress, depression and anxiety and consists of 16 dichotomous items (1=no, 2=yes). The scale score was obtained by calculating a mean score across all 16 item, leading to one scale ranging from 1 to 2. Sample items are: 'Did you have problems getting asleep last week?', 'Did you feel everything was pointless last week?', 'Did you feel anxious last month?'. The Cronbach alpha for this scale was .80. The predictive validity of the 4 DSQ has been found satisfactory in Dutch studies (Terluin, van Rhenen, Schaufeli, & de Haan, 2004).

Independent variables

All four job characteristics were measured with a Dutch questionnaire assessing psychosocial job demands (VBBA) (van Veldhoven & Meijman, 1994). The VBBA is a widely used instrument in research on psychological job factors and job stress in the Netherlands (see also van Veldhoven, Taris, de Jonge, & Broersen, 2005). In the present study we used four scales of the VBBA, measuring workload (Cronbach's alpha .89), emotional demands (Cronbach's alpha .76), autonomy (Cronbach's alpha .87), and social support from colleagues (Cronbach's alpha .82). Items were scored on a 4-point rating scale ranging from 1, 'always' to 4, 'never'.

[4] For an overview of the differences in demographic characteristics of both job types see Table 1.

The workload scale consists of 11 items. A sample item of this scale is 'Do you have to work very fast?'. The psychometric properties of this scale have been found to be good (de Croon, Sluiter, Blonk, Broersen, & Frings-Dresen, 2004; Sluiter, de Croon, Meijman, & Frings-Dresen, 2003; van Yperen & Janssen, 2002). The emotional demands scale consists of 7 items. A sample item of this scale is: 'Do others call on you personally in your work?'. Good validity and reliability of this scale have been demonstrated in other Dutch studies (Jansen, Kant, Kristensen, & Nijhuis, 2003; Schaufeli & Bakker, 2004; Sluiter et al., 2003). The autonomy scale also consists of 11 items. A sample item of this scale is: 'Do you resolve problems arising in your work yourself?'. The psychometric properties of this scale have been found to be good (Claessens, van Eerde, Rutte, & Roe, 2004; de Croon et al., 2004; Sluiter et al., 2003). Finally, the scale measuring social support from colleagues consists of 9 items. A sample item of this scale is: 'Is there a good atmosphere between you and your colleagues?'. The psychometric properties of this scale have been found to be good (Bakker et al., 2004; Geurts, Kompier, Roxburgh, & Houtman, 2003; Schaufeli & Bakker, 2004). For all scales scores were reversed so that higher scores reflect more workload, more emotional demands, more autonomy and more social support from colleagues.

Family-to-work conflict was measured by the 5 strain-based items of the negative home-work interference scale of the 'Survey Work-home Interference-Nijmegen' (SWING) (Wagena & Geurts, 2000). Items were scored on a 4-point rating scale ranging from 1, 'always', to 4, 'never'. A sample items is: 'How often does it happen that you do not fully enjoy your work because you worry about your home situation?'. Scores were reversed so that higher scores reflect more family-to-work conflict. Cronbach's alpha was .83. Good validity and reliability of this scale have been demonstrated in other Dutch studies regarding work-family interference (Demerouti et al., 2004; Geurts et al., 2003; Jansen et al., 2003). For all measures (dependent and independent variables), a scale score was obtained by calculating a mean score across all items of the particular scale.

The background variables measured were gender (1=women, 2=men), age (continuous), educational level (measured with one item consisting of seven response categories ranging from 1, 'primary education', to 7, 'university'), contract hours (continuous), job tenure (continuous) and job type, which was dichotomized into 1 = LPI jobs and 2 = HPI jobs.

Data analyses

Zero order correlations were used to examine the general pattern of relations among the variables. Prior to regression analyses, the assumed differences in emotional demands as well as differences in the other study variables between employees working in HPI and LPI jobs were analyzed by a MANOVA based on the general linear model (GLM). Levene's test for equality of variances was used. When the assumption of equal variance was violated, t-tests were computed and group means were compared using the statistics that do not assume equal

variances. For each outcome variable, i.e., emotional exhaustion and mental health problems, a separate regression analysis was performed for employees working in HPI jobs and LPI jobs. The independent variables were entered as a block into the regression equation in the following order: (1) background variables; (2) job characteristics; (3) emotional demands, (4) family-to-work conflict, and (5) the interaction effects between the job characteristics and family-to-work conflict, as well as between emotional demands and family-to-work conflict. In order to eliminate non-essential correlation between the interaction terms and their component variables, all predictor variables were centered (Aiken & West, 1991; Tabachnick & Fidell, 2001). To assess the model fit in each step the change in R^2 was tested. All analyses were performed with the statistical program SPSS 12.01 for Windows.

RESULTS

Means, standard deviations and correlations of all study variables are shown in Table 1. The job characteristics, workload and emotional demands correlated positively with emotional exhaustion and mental health problems, autonomy and social support from colleagues negatively. Family-to-work conflict was positively related with both the outcome variables.

Differences in study variables between the two job types

Means of both job types are also displayed in Table 1. Employees working in HPI jobs were higher educated (t (285) = -9.29, p <. 001) , worked more hours per week (t (343) = -3.55, p < .001) and were on the average younger (F = 39.65, p < .001) than employees in LPI jobs. Furthermore, employees working in HPI jobs reported more emotional demands (F = 443.32, p < .001), less autonomy (t (342) = 5.82, p < .001), more family-to-work interference (t (445) = -3.97, p < .001), and both more emotional exhaustion (F = 21.05, p < .001) and mental health problems (F = 4.41, p < .05).

Results of the regression analyses

In order to answer the question how the four job characteristics are related to emotional exhaustion Model 3 of the regression analyses had to be inspected, as this Model estimates the effect of the four job characteristics on the dependent variable taking into account the background variables. Initially, regression analyses were performed including educational level as a background variable. As educational level was not significantly related to both dependent variables, but did lead to 49 more missing cases, regression analyses were ran for both dependent variables without educational level. Significant relations between the other independent variables and the two dependent variables were the same for both the regression with and without educational level. Accordingly, regression analyses without educational level were used in the current study.

Table 1. Means, standard deviations and correlations among study variables

Variables		Mean and *(SD)*			1	2	3	4	5	6	7	8	9	10	11
		Total	HPI jobs[a]	LPI jobs[b]											
1	Age[c]	39.48 *(9.41)*	38.47 *(9.40)*	42.59 *(8.71)*	1.0										
2	Education	5.37 *(1.22)*	5.62 *(0.95)*	4.59 *(1.60)*	-.20**	1.0									
3	Working Hours[c]	29.16 *(6.86)*	29.66 *(6.30)*	27.63 *(8.20)*	-.05	.13**	1.0								
4	Job Tenure	12.35 *(8.85)*	12.61*(8.69)*	11.55 *(9.31)*	.61**	-.07*	.04	1.0							
5	Workload	2.30 *(0.44)*	2.30 *(0.43)*	2.32 *(0.45)*	.08*	.08*	.09**	.13*	1.0						
6	Autonomy[c]	2.68 *(0.48)*	2.62 *(0.43)*	2.85 *(0.57)*	.11*	.03	.03	.09**	-.17**	1.0					
7	SS Colleagues	3.35 *(0.37)*	3.34 *(0.36)*	3.39 *(0.40)*	-.04	-.10**	-.07*	-.13**	-.23**	.18**	1.0				
8	Emotional Demands[c]	2.27 *(0.47)*	2.42 *(0.40)*	1.82 *(0.39)*	-.07*	.22**	.17**	.12	.23**	-.22**	-.20**	1.0			
9	FWC[c]	1.33 *(0.37)*	1.35 *(0.38)*	1.25 *(0.35)*	-.08*	.05	.06	-.03	.04	-.09**	-.13**	.14**	1.0		
10	Emotional Exhaustion[c]	2.63 *(1.12)*	2.72 *(1.11)*	2.38 *(1.09)*	-.03	.11**	.08*	.03	.41**	-.23**	-.26**	.35**	.21**	1.0	
11	Mental Health Problems[d]	1.13 *(0.17)*	1.14 *(0.17)*	1.11 *(0.16)*	.04	.03	.02	.04	.24**	-.14**	-.23**	.26**	.28**	.61**	1.0

Note: $N = 1008$ except for the correlations with education, these are based on 959 respondents, $*p < .05$; $**p < .01$ (two-tailed). [a] HPI = high patient interaction, [b] LPI = low patient interaction. [c] Significant at the $p < .001$ level. [d] Significant at the $p < .05$ level; SS Colleagues = Social Support from Colleagues; FWC = Family-to-Work Conflict

Model 4 was inspected to answer whether family-to-work conflict is related to emotional exhaustion, after controlling for the background variables and the job characteristics. Model 5 displays the interaction effects between the job characteristics and family-to-work conflict.

Emotional exhaustion

Results for emotional exhaustion are shown in Table 2 (HPI jobs) and 3 (LPI jobs). For employees working in HPI jobs it was found that women reported more feelings of emotional exhaustion (β = -.07, p < .05) than men. For those working in LPI jobs it was found that working more hours lead to more feelings of emotional exhaustion (β = .14, p < .05).

Model 3 of Table 2 and Table 3 showed that of the job characteristics, workload was related positively to emotional exhaustion for employees working in both HPI and LPI jobs (β = .30, p < .001 and β = .31, p < .001 respectively). Autonomy was related negatively to emotional exhaustion in both job types (β = -.11, p < .01 for HPI jobs and β = -.12, p < .05 for LPI jobs), and social support from colleagues was related negatively to feelings of emotional exhaustion only of employees working in HPI jobs (β = -.14, p < .001). Thus, employees in both HPI and LPI jobs who report high levels of autonomy report less feelings of emotional exhaustion, while only employees in HPI jobs, who report high levels of social support from colleagues report less feelings of emotional exhaustion. Emotional demands were related positively to emotional exhaustion of employees working in both job types (β = .22, p < .001 and β = .18, p < .01). That is, employees who report high levels of emotional demands report more feelings of emotional exhaustion.

Model 4 of Table 2 and 3 showed that family-to-work conflict was related positively to emotional exhaustion for employees in both job types (β = .11, p < .01 for HPI and β = .26, p < .001 for LPI). That is, employees who report high levels of family-to-work conflict report more feelings of emotional exhaustion.

Table 3 showed that only for employees working in LPI jobs a significant interaction effect was found (see Model 5). The "chunk" test (Kleinbaum, 1992) revealed a significant increase in explained variance between the model with all interaction terms (Model 5) and the model with none of the interaction terms (Model 4). Evaluation of the individual interaction terms showed that the interaction effect of social support from colleagues by family-to-work conflict was significant (β = .18, p < .01) for employees working in LPI jobs. This interaction effect showed that employees who receive little social support from colleagues and at the same time experience high levels of family-to-work conflict, report more feelings of emotional exhaustion than employees who receive much social support from their colleagues and experience high levels of family-to-work conflict.

Table 2. Job characteristics and FWC as predictors of emotional exhaustion of employees working in HPI jobs (n=762)

		Model 1			Model 2			Model 3			Model 4		
Step	Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
1	Age	0.00	0.01	-0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01
	Gender	-0.22	0.10	-0.09*	-0.15	0.08	-0.06	-0.17	0.08	-0.07*	-0.16	0.08	-0.06
	Working Hours	0.01	0.01	0.05	0.00	0.01	0.02	0.00	0.01	0.01	0.00	0.01	0.00
	Job Tenure	-0.00	0.01	-0.01	-0.01	0.01	-0.05	-0.01	0.01	-0.05	-0.01	0.01	-0.05
2	Workload				0.95	0.09	0.37***	0.79	0.09	0.30***	0.78	0.09	0.30***
	Autonomy				-0.32	0.09	-0.12***	-0.27	0.08	-0.11**	-0.26	0.08	-0.10**
	SS Colleagues				-0.49	0.10	-0.16***	-0.43	0.10	-0.14***	-0.39	0.10	-0.13***
3	Emotional Demands							0.61	0.09	0.22***	0.59	0.09	0.21***
4	FWC										0.31	0.09	0.11**
5	(No significant interactions)												
	R^2		0.01			0.23			0.27			0.28	
	F for change in R^2		1.64			72.81***			42.39***			11.18**	

Note: All predictor variables were mean centered. *p<.05; **p<.01; ***p<.001. Gender 1 = female, 2 = male; SS Colleagues = Social Support from Colleagues; FWC = Family-to-Work Conflict; Nonsignificant interactions are not displayed.

Table 3. Job characteristics and FWC as predictors of emotional exhaustion of employees working in LPI jobs (n= 246)

		Model 1			Model 2			Model 3			Model 4			Model 5		
Step	Variable	*B*	*SE B*	*β*	*B*	*SE B*	*B*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
1	Age	-0.00	0.01	-0.01	-0.01	0.01	-0.05	-0.01	0.01	-0.06	-0.00	0.01	-0.03	0.00	0.01	0.00
	Gender	-0.33	0.18	-0.14	-0.30	0.17	-0.12	-0.31	0.16	-0.13	-0.23	0.16	-0.10	-0.23	0.16	-0.09
	Working Hours	0.03	0.01	0.20**	0.02	0.01	0.16*	0.02	0.01	0.14*	0.02	0.01	0.12	0.02	0.01	0.12
	Job Tenure	0.02	0.01	0.19*	0.01	0.01	0.10	0.01	0.01	0.06	0.01	0.01	0.05	0.01	0.01	0.06
2	Workload				0.78	0.15	0.33***	0.74	0.15	0.31***	0.80	0.14	0.33***	0.92	0.16	0.38***
	Autonomy				-0.26	0.12	-0.14*	-0.24	0.12	-0.12*	-0.21	0.11	-0.11	-0.17	0.13	-0.09
	SS Colleagues				-0.23	0.18	-0.08	-0.14	0.18	-0.05	-0.08	0.17	-0.03	0.07	0.18	0.03
3	Emotional Demands							0.51	0.18	0.18**	0.49	0.17	0.17**	0.45	0.17	0.16**
4	FWC										0.80	0.17	0.26***	0.75	0.27	0.24**
5	SS Colleagues* FWC													1.38	0.44	0.18**
	R^2		0.07			0.21			0.24			0.30			0.33	
	F for change in R^2		4.41**			14.72***			8.41**			21.26***			9.74**	

Note: All predictor variables were mean centered. *p<.05; **p<.01; ***p<.001. Gender 1 = female, 2 = male; SS Colleagues = Social Support from Colleagues; FWC = Family-to-Work Conflict; Nonsignificant interactions are not displayed.

As shown in Table 2 and 3, after controlling for the background variables, the job characteristics explained a large portion of the variability in both job types ($\Delta R^2 = .22$, $p < .001$, for HPI jobs, and $\Delta R^2 = .14$, $p < .001$ for LPI jobs). The proportion of additional variance explained by emotional demands, after controlling for the background variables and the job characteristics was small, but significant for employees in both job types ($\Delta R^2 = .04$, $p < .001$ and $\Delta R^2 = .03$, $p < .01$, respectively). Family-to-work conflict explained only a small portion of emotional exhaustion after controlling for the other study variables for employees working in HPI jobs ($\Delta R^2 = .01$, $p < .01$). For employees in LPI jobs the additional variance explained was somewhat larger ($\Delta R^2 = .06$, $p < .001$). The interaction effect of social support from colleagues by family-to-work conflict explained a significant portion of the variability associated with emotional exhaustion for those working in LPI jobs ($\Delta R^2 = .03$, $p < .05$). For employees working in HPI jobs the full regression models accounted for 28% of the variability in emotional exhaustion and for employees in LPI jobs for 33%.

Mental health problems

Results for mental health problems are shown in Table 4 (HPI jobs) and Table 5 (LPI jobs). For employees working in HPI jobs, it was found that women reported more mental health problems ($\beta = -.12$, $p < .01$) than men. For those working in LPI jobs none of the background variables were significant.

Model 3 of Table 4 and 5 showed that of the job characteristics, workload was related positively to mental health problems for employees in both job types ($\beta = .12$, $p < .01$ for HPI jobs and $\beta = .15$, $p < .01$ for LPI jobs). Autonomy was not significantly related to mental health problems of employees in HPI or LPI jobs. Social support from colleagues and emotional demands were only significant for those working in HPI jobs ($\beta = -.18$, $p < .001$ and $\beta = .22$, $p < .001$, respectively). So, employees working in HPI jobs who report low levels of social support from colleagues or experience high levels of emotional demands report more mental health problems than employees in HPI jobs who report high levels of social support or low levels of emotional demands.

Model 4 of Table 4 and 5 showed that family-to-work conflict was related to mental health problems of employees working in both job types ($\beta = .22$, $p < .001$ for HPI jobs and $\beta = .29$, $p < .001$ for LPI jobs), indicating that employees who experience family-to-work conflict report more mental health problems than those who do not experience family-to-work conflict.

None of the interactions between family-to-work conflict and the job characteristics were significant, indicating that the direct effects of family-to-work conflict and the job characteristics do not have a multiplicative effect on mental health problems for employees working in HPI or LPI jobs (see Model 5 of Table 4 and 5).

Table 4. Job characteristics and FWC as predictors of mental health problems of employees working in HPI jobs (n= 762)

		Model 1			Model 2			Model 3			Model 4		
Step	Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
1	Age	0.00	0.00	0.01	0.00	0.00	0.08	0.01	0.00	0.09	0.00	0.00	0.09*
	Gender	-0.05	0.01	-0.13**	-0.04	0.01	-0.11**	-0.04	0.01	-0.12**	-0.04	0.01	-0.11**
	Working Hours	0.00	0.00	0.03	0.00	0.00	0.02	0.00	0.01	0.01	0.00	0.00	-0.01
	Job Tenure	0.00	0.00	-0.02	-0.00	0.00	-0.05	-0.00	0.00	-0.06	-0.00	0.00	-0.05
2	Workload				0.07	0.01	0.18***	0.05	0.01	0.12**	0.05	0.01	0.12**
	Autonomy				-0.03	0.01	-0.09*	-0.03	0.01	-0.07	-0.02	0.01	-0.06
	SS Colleagues				-0.09	0.02	-0.19***	-0.08	0.02	-0.18***	-0.07	0.02	-0.15***
3	Emotional Demands							0.09	0.02	0.22***	0.09	0.02	0.20***
4	FWC										0.10	0.02	0.22***
5	(No significant interactions)												
	R^2		0.02			0.12			0.16			0.21	
	F for change in R^2		2.91*			29.74***			36.11***			43.03***	

Note: All predictor variables were mean centered. *p<.05; **p<.01; ***p<.001. Gender 1 = female, 2 = male; SS Colleagues = Social Support from Colleagues; FWC = Family-to-Work Conflict; Nonsignificant interactions are not displayed.

Table 5. Job characteristics and FWC as predictors of mental health problems of employees working in LPI jobs (n= 246)

		Model 1			Model 2			Model 3			Model 4		
Step	Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
1	Age	0.00	0.00	0.07	0.00	0.00	0.06	0.01	0.01	0.06	0.00	0.00	0.09
	Gender	-0.05	0.03	-0.13	-0.05	0.03	-0.13	-0.05	0.03	-0.13	-0.03	0.03	-0.10
	Working Hours	0.00	0.00	0.10	0.00	0.00	0.06	0.00	0.00	0.05	0.00	0.00	0.03
	Job Tenure	0.00	0.00	0.13	0.00	0.00	0.06	0.00	0.00	0.04	0.00	0.00	0.03
2	Workload				0.05	0.02	0.16*	0.05	0.02	0.15*	0.06	0.02	0.17**
	Autonomy				-0.00	0.02	-0.01	-0.00	0.02	-0.01	0.00	0.02	0.01
	SS Colleagues				-0.05	0.03	-0.12	-0.04	0.03	-0.10	-0.03	0.03	-0.08
3	Emotional Demands							0.05	0.03	0.11	0.04	0.03	0.11
4	FWC										0.13	0.03	0.29***
5	(No significant interactions)												
	R^2		0.04			0.08			0.09			0.17	
	F for change in R^2		2.38			3.77*			2.74			44.58***	

Note: All predictor variables were mean centered. *p<.05; **p<.01; ***p<.001. Gender 1 = female, 2 = male; SS Colleagues = Social Support from Colleagues; FWC = Family-to-Work Conflict; Nonsignificant interactions are not displayed.

As shown in Tables 4 and 5, for employees in HPI jobs a large part of the variability in mental health problems was explained by the job characteristics ($\Delta R^2 = .10$, $p < .001$), family-to-work conflict explained a large part of the variability in mental health problems of those in LPI jobs ($\Delta R^2 = .08$, $p < .001$).

The job characteristics and family-to-work conflict explained a significant part in the variability in mental health problems for both employees in HPI and LPI jobs (($\Delta R^2 = .10$, $p < .001$ for HPI jobs, and $\Delta R^2 = .04$, $p < .05$ for LPI jobs) and ($\Delta R^2 = .05$, $p < .001$ for HPI jobs, and $\Delta R^2 = .08$, $p < .001$ for LPI jobs) respectively)

The proportion of additional variance explained by emotional demands, after controlling for the background variables and the job characteristics was only significant for employees working in HPI jobs ($\Delta R^2 = .04$, $p < .001$). For both job types the interaction effects did not explained a significant portion of the variability associated with mental health problems. For employees in HPI jobs the full regression models accounted for 21% of the variability in mental health problems and for employees in LPI jobs for 17%.

Considering these results for emotional exhaustion and mental health problems, it appears that hypothesis 1a, assuming that workload is related positively to emotional exhaustion and mental health problems, was confirmed for both job types. Hypothesis 1b, that autonomy and social support from colleagues are related negatively to emotional exhaustion and mental health problems, was partially confirmed. That is, with regard to emotional exhaustion this hypothesis was only supported among those working in HPI jobs, and partially among those working in LPI jobs. That is, both social support from colleagues and autonomy were related negatively with emotional exhaustion among those working in HPI jobs, whereas autonomy was related negatively with emotional exhaustion among employees in LPI jobs. With regard to mental health problems, only among employees working in HPI jobs this hypothesis was partially confirmed. That is, social support from colleagues was negatively related with mental health problems of HPI employees. No significant relations were found for employees in LPI jobs. Hypothesis 1c, assuming that emotional demands were related positively to emotional exhaustion and mental health problems, was confirmed for emotional exhaustion. For mental health problems, emotional demands were only related to mental health problems of employees in HPI jobs. Hence, this hypothesis was partially confirmed.

Hypothesis 2, in which we assume that family-to-work conflict is positively related to both health outcomes, was confirmed in both job types.

Hypothesis 3a assumed a multiplicative interaction effect of job resources and family-to-work conflict on emotional exhaustion and mental health problems, i.e., job resources decrease the negative effect of family-to-work conflict on emotional exhaustion and mental health problems. We only found support for a multiplicative effect of social support from colleagues and family-to-work conflict on emotional exhaustion, and only among employees working in LPI jobs. Hypothesis 3b, in which the job demands are assumed to increase the

assumed negative effect of family-to-work conflict on emotional exhaustion and mental health problems, was not at all confirmed.

DISCUSSION

The present study contributes to the existing occupational health literature in two ways. First, to gain more insight into the impact of service jobs on service employees' health and well-being, following de Jonge and Dormann (de Jonge & Dormann, 2003), who stress the importance of the distinction between service jobs based on the amount of interaction work performed by service workers when examining stress in the service sector, our study distinguishes between different levels of interaction with patients among mental health care employees. More specifically, our study distinguishes between employees working in high patient interaction (HPI) jobs, i.e., jobs aimed at altering or modifying patients, and employees working in low patient interaction (LPI) jobs, i.e., jobs that involve performing person-related tasks that require some interaction with patients. Second, in addition to common job stressors, a home-related stressor that interferes with the work domain, i.e., strain-based family-to-work conflict, was incorporated in this study. This, we believe is a contribution as most occupational health research focuses on work-family conflict in general or on work-to-family conflict.

The aim of the present study was to examine the impact of three common job stressors (i.e., workload, autonomy and social support from colleagues), a job stressor specific to the health care sector (i.e., emotional demands) and a home-related stressor (i.e., family-to-work conflict) on mental health outcomes among employees working in HPI jobs and LPI jobs. Furthermore, we examined whether these job characteristics and family-to-work conflict have a multiplicative interaction effect on employees' feelings of emotional exhaustion and mental health problems.

Generally accepted assumptions concerning differences between employees in HPI jobs and LPI jobs were tested. Results were in favor of the current assumption that employees working in HPI jobs report more emotional demands than employees in LPI jobs. Furthermore it appeared that employees working in HPI jobs also report more feelings of emotional exhaustion and more mental health problems. With regard to the level of complaints, however, it should be noted that the level of emotional exhaustion among the respondents of our study were moderate. Compared with the norm scores (Schaufeli & van Dierendonck, 1994) of healthy employees, respondents in our sample report higher levels of emotional exhaustion, whereas compared with employees who report burnout complaints respondents in our sample report lower levels of emotional exhaustion[5]. Scores of mental health problems could not be compared with their norm scores, as we used an adapted shortened scale to measure mental health problems.

[5] Detailed information about the norm scores can be obtained from the corresponding author.

In accordance with previous research, both emotional demands and workload were found to be associated with emotional exhaustion and mental health problems. However, it appeared that emotional demands only contributed to the explanation of mental health problems of employees in HPI jobs, whereas mental health of employees working in LPI jobs was not affected by emotional demands. Results for job autonomy and social support from colleagues were not as expected; autonomy only decreased feelings of emotional exhaustion and was not related with mental health problems. Social support from colleagues only decreased feelings of emotional exhaustion and mental health problems of those working in HPI jobs.

Although the level of complaints in our study were modest, employees working in HPI jobs seem to be more at risk when in comes to their health and well-being than employees in LPI jobs. That is, employees working in HPI jobs, who encounter already a higher level of emotional demands from their jobs than LPI employees, and for whom these emotional demands seem to have a higher impact on their well-being, suffer from a lack of autonomy and social support. A lack of autonomy and support adds to their stress level in a work situation that is generally believed to be more stressful than in LPI jobs. Employees working in LPI jobs are confronted with less emotional demands, have more autonomy, and receive more social support from colleagues. Moreover, they report less family-to-work conflict and work less hours per week.

With respect to family-to-work conflict, support was found for the idea that, in addition to job stressors, this home-related stressor relates to emotional exhaustion and mental health problems. Where previous studies showed that *work-to-family* conflict has a significant effect on employee's health outcomes (Frone, Russell et al., 1997; Proost, de Witte, de Witte, & Evers, 2004), we extended these findings by showing that *family-to-work* conflict is associated with emotional exhaustion and mental health problems. Furthermore, this study showed that the adverse effect of family-to-work conflict on feelings of emotional exhaustion is mitigated by social support from colleagues for those working in LPI jobs. Given these results, we consider it useful to integrate family-to-work conflict into job stress research and suggest to further investigate the effect of family-to-work conflict on health related outcomes, both directly and combined with other stressors.

Generally, the job stressors explained the largest part of variance in both emotional exhaustion and mental health problems of employees working in HPI jobs, whereas for employees in LPI jobs the largest part of variance was explained by family-to-work conflict, especially of mental health problems. These findings, in line with Borritz et al. (2005), de Jonge & Dormann (2003), and Sparks and Cooper (1999), show that it is important to take account of different stressors in different job types.

Several limitations of the present study and issues for future research can be mentioned. First, as our data were cross-sectional it is not possible to draw any causal conclusions based on findings of the present study. The direction of the relationships between stressors and outcome variables can only be determined theoretically. Thus, although it is

likely that job demands, job resources and family-to-work conflict influence feelings of emotional exhaustion and mental health problems, it might be the other way around as well. That is, feelings of emotional exhaustion and mental health complaints may influence the perception of stress-related factors at work and at home. Second, we only used self-report data, which may lead to data contamination due to common method variance. Although several studies have shown common method variance not to be as problematic as once thought (Semmer, Zapf, & Greif, 1996; Spector, 1992), common method variance would enlarge main effects at the cost of finding interaction effects (cf. de Jonge et al., 1999). In our case this may have resulted in not finding significant interaction effects apart from the social support from colleagues by family-to-work conflict interaction. Third, we did not incorporate intrinsic personal characteristics, such as for example overcommitment, in our study. This may be a limitation, as some studies found evidence for the impact of overcommitment on the relation between stress and employee health (de Jonge et al., 2000; Siegrist & Peter, 1994). On the other hand, other studies did not support these findings (de Jonge & Hamers, 2000). Fourth, employees in LPI jobs were lower educated and worked on lower job levels than those in HPI jobs, which may have led to confounded effects of job type and job level. Finally, our data are from a Dutch population which may limits its generalizability to other countries. An illustration of this is for instance that working part-time is very common among women in the Netherlands(SCP, 2006), making it difficult to generalize our results to studies performed in countries where working part-time is not the norm among women.

In conclusion, the present findings provide evidence that different job characteristics are related to emotional exhaustion and mental health problems of employees working in HPI and LPI jobs. Furthermore, it appears that the job resources; autonomy and social support act in a different way for those working in HPI and LPI jobs. That is, although social support did not reduce emotional exhaustion and mental health problems of employees in LPI jobs directly, it buffered the impact of family-to-work conflict on emotional exhaustion for those in LPI jobs. Whereas findings for employees in HPI jobs were the other way around. In accordance with Frone, Russell and Cooper (1997) and Reed Keene and Reynolds (2005), we found that family-to-work conflict has negative consequences for one's emotional exhaustion and mental health. Hence stress research as well as organizational programs designed to promote employees' health should take this home-related stressor into account.

The present findings have practical implications as well. Although, levels of complaints and stress were moderate, findings of the present study can be helpful in programs of stress management or stress prevention within the health care services. Especially as it provides insight into service jobs with different levels of patient interaction. With regard to HPI jobs, where emotional demands have a high impact, and often cannot easily be diminished due to the nature of these jobs, it will be useful to pay careful attention to those factors that can be improved in order to diminish the stress level of the work situation. Giving those employees autonomy if possible, encouraging mutual social support among colleagues,

protecting them from too heavy workloads, and providing work-family support are all measures that are within reach of management and can probably prevent or at least diminish health problems due to the stressful nature of HPI jobs. Nevertheless, one should be careful not to overlook employees with low levels of patient interaction in their jobs. Although most research emphasizes the adverse health effects of stressors for those working in HPI jobs, our research demonstrates that employees with low levels of patient interaction also may suffer adverse effects from various stressors as well. For them also, paying attention to workload and, especially, to diminishing family-to-work conflict by providing relevant work-family programs may enhance their well-being and prevent burnout. Moreover, as different stressors are associated with emotional exhaustion and mental health problems of employees working in the two job types, employees with high and low levels of patient interaction should not be treated in the same way in programs of stress prevention.

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Chapter 7

General Discussion

INTRODUCTION

Although the division of roles is still gendered, i.e., men being primarily responsible for providing a family income and women for childcare and household chores, most men and women combine work and family responsibilities. Combining these roles may lead to difficulties, as one has to adequately respond to the demands from the work and home domain. Accordingly if one is not able to fulfil the demands from both domains adequately, work-family conflict has become a fact.

Work-family conflict can have serious negative consequences for one's well-being. Especially the relationship between work-family conflict and stress-related outcomes, such as burnout, depression, general psychological and physical health complaints have been found strong and consistent (Allen, Herst, Bruck, & Sutton, 2000; Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005).

Social support, i.e., the exchange of resources between individuals, aimed at helping the person who receives the support, is important to enhance one's well-being, as social support reduces stressors and strains (Beehr & McGrath, 1992; Kaufmann & Beehr, 1989; Sarason, Sarason, & Pierce, 1990). Also, in the work-family context social support has been found helpful, either through reducing the conflict or managing the stress associated with it (Carlson & Perrewé, 1999; Greenhaus & Parasuraman, 1994).

Although there is strong evidence that social support is helpful in reducing stress, leading to enhanced well-being, and that work-family conflict has detrimental effects for one's well-being, research investigating how social support, work-family conflict and well-being are related is still rare. Therefore, the present study investigated the role of social support in relation to work-family conflict and well-being. More specifically, it was investigated how social support affects a) work-family conflict, b) well-being, and c) the relationship between work-family conflict and well-being. Furthermore, as men and women generally are found to differ in social support, work-family conflict and well-being, this study tried to uncover gender differences in the relationships mentioned above. Hence, the main research question was formulated as follows: "*How can the relationship between social support, work-family conflict and well-being be explained, and are there gender differences in this respect?*".

To investigate these relationships five research questions were formulated. The first four research questions were examined using sub samples of a large dataset, and although different sub samples were used, some of the data overlap. Especially, the data used in Chapter 3 and 4 (research question 2 and 3) mainly consist of the same respondents. The other sub samples overlap to a lesser extent. Research question five, dealt with in Chapter 6, is studied in a totally different sample.

In the present chapter, first the main findings of this dissertation are described. Next, theoretical considerations pertaining to our main research question are discussed. Finally, practical implications, the limitations and strengths of this study and recommendations for future research are described.

MAIN FINDINGS

The first research question *"What is the underlying mechanism of social support in the work-family conflict – well-being relationship?"*, addressed how social support affects one's well-being, when work-family conflict is considered the stressor, and was answered in Chapter 2. Three models were tested, representing the direct, indirect and stress-buffering effect of social support in relation to work-family conflict and well-being. Moreover, it was explored whether social support acts differently for men and women.

The sample consisted of 611 respondents who were employed and either married or co-habiting at the time of the survey. To measure well-being three measures: general health state, psychological well-being and life satisfaction were used. Measures were self-reports reflecting subjective well-being.

Strongest support was found for the direct-effect model, i.e., the model representing a positive relationship between social support and well-being independent from the experienced level of work-family conflict. No gender differences in how social support relates to work-family conflict and well-being were found: both for men and women strongest support was found for the direct-effect model.

In Chapter 3 we examined how four sources of social support (spouse, relatives and friends, supervisor, and colleagues) were related to three aspects of well-being among 450 dual-earners and answered the question: *"How are different sources of social support related to health, psychological well-being and life satisfaction, and are there gender differences in this respect?"*. Results of this study revealed that social support from spouse, from relatives and friends, and from supervisor were related to psychological well-being, whereas only support from one's spouse was related to life satisfaction and none of the social support variables was related to health. With regard to gender differences, social support from colleagues was differently important for men and women's general health, i.e., men's health slightly decreased as they receive more social support from their colleagues, whereas women's health increased when they receive more social support from their colleagues. Moreover, the working hours of one's spouse were differently important for men and women's psychological well-being and life satisfaction: men's psychological well-being and life satisfaction increased as their spouses worked more hours, whereas women's well-being and life satisfaction decreased as their spouses worked more hours.

In Chapter 4 we distinguished between the two directions of work-family conflict; work-to-family conflict (WFC) and family-to-work conflict (FWC), as well as the two forms

of conflict that are most commonly used, i.e., time and strain-based conflict (Greenhaus & Parasuraman, 1994; Rotondo, Carlson, & Kincaid, 2003). We addressed the relationship between four sources of social support and time and strain-based WFC and FWC, and answered the following question: *"Are work and home-related sources of social support related differently to time and strain-based WFC and to time and strain-based FWC?"*. This study was conducted among 444 dual-earners. With respect to FWC, it appeared that social support from spouse and from colleagues negatively affected time-based FWC. Social support from spouse negatively affected strain-based FWC. The interaction effect indicated that men and women's time-based WFC was affected differently. That is, men's time-based WFC tended to decrease when they received more supervisory support, whereas women's time-based WFC tended to increase when they received more support from their supervisor. Also for strain-based FWC we found that men's conflict decreased when men received social support from their colleagues, while women's conflict was hardly affected by support from colleagues.

Chapter 5 concerned individual and crossover effects of work-family conflict on general health, psychological well-being and life satisfaction. This study addressed the following research question: *"How can one's own WFC and FWC, and one's spouse's WFC and FWC, explain one's health, psychological well-being and life satisfaction?"*. The sample used in this study consisted of 164 couples, who were either married or cohabiting, and of which both spouses had a paid job at the time of the study.

Both types of WFC and FWC relate differently to one's general health, psychological well-being and life satisfaction. That is, men and women's own WFC was not related to general health at all, whereas women's FWC was related negatively to general health. Regarding psychological well-being, men and women's own WFC was related negatively to psychological well-being, while FWC was not related to well-being. Similarly, men and women's own FWC was not related to life satisfaction, only men's own WFC was related negatively to life satisfaction.

Regarding the crossover effects, i.e., the effect of WFC and FWC experienced by one spouse on the other spouse's well-being, we only found crossover effects of WFC on life satisfaction for both men and women. More specifically, one's spouse's WFC led to diminished life satisfaction in both men and women.

In Chapter 6 we examined the impact of four job characteristics (workload, autonomy, social support from colleagues and emotional demands) and family-to-work conflict (FWC) in relation to emotional exhaustion and mental health problems. In addition to the direct effects of these job characteristics and FWC, we examined whether the job characteristics and FWC have a multiplicative effect on feelings of emotional exhaustion and mental health problems. The following question was answered in this study: *"How does family-to-work conflict relate to mental health outcomes after controlling for four other job characteristics and what is their joint effect on these mental health outcomes?"*

This study was conducted among a different sample consisting of 1008 employees working in the mental health care sector. Of these 1008 employees 762 worked in high patient interaction jobs (HPI jobs), and 246 in low patient interaction jobs (LPI jobs).

Workload and emotional demands were related positively to feelings of emotional exhaustion for employees in both job types. Autonomy was related negatively to emotional exhaustion in both job types, and social support from colleagues was only related negatively to feelings of emotional exhaustion of employees working in HPI jobs.

FWC was related positively to emotional exhaustion of employees in both job types. For mental health problems, we found workload to be related positively and autonomy negatively to this outcome variable in both job types. Only for employees in HPI jobs we found emotional demands related positively and social support negatively to mental health problems. These two latter job characteristics did not affect mental health problems of employees working in LPI jobs. FWC was related positively to mental health problems of employees in both job types. Receiving social support from colleagues reduced the severity of FWC on feelings of emotional exhaustion only for employees working in LPI jobs.

THEORETICAL REFLECTIONS AND FUTURE RESEARCH

Building further on the ample evidence that social support is beneficial and work-family conflict detrimental for one's well-being, the present research found social support to enhance one's well-being directly, irrespective of the experienced level of work-family conflict. Thus, regardless whether one experiences work-family conflict, receiving social support is beneficial for one's well-being. Moreover, work-family conflict negatively affected one's well-being. As expected, social support reduced work-family conflict. However, it should be noted that these relationships are more complex than they appear at first sight. That is, different sources of social support relate to different aspects of well-being, and to different types of work-family conflict. The two types of work-family conflict, WFC and FWC, relate differently to various well-being outcomes as well.

In the study regarding the underlying mechanism of social support in the work-family conflict – well-being relationship (Chapter 2), latent variables were used to measure these three concepts. As a consequence, no distinction was made between WFC and FWC, any of the sources of social support and the variables to measure well-being. Therefore, the effect of the different scales used to estimate the latent variables, may neutralize each other, such that no relations were found. Moreover, it was not possible to match the source and type of social support to either WFC or FWC. However, it has been argued that matching the source and type of support to the stressor is necessary to find any stress-buffering or moderating effects (Cohen & McKay, 1984; Cohen & Wills, 1985). Another explanation for not finding stress-buffering effects, which is in line with the original theory of Cohen and Wills (1985), could be because the experienced level of stress was modest to low. That is, respondents reported

fairly low levels of WFC and FWC. According to Cohen and Wills (1985), stress-buffering effects only occur if someone experiences stress, when there is no stress or little stress, social support is not likely to serve as a buffer against the negative effects of that stressor.

Surprisingly, however, in Chapter 6 we only found social support to moderate the stressor-strain relationship when the severity of the perceived stressor, i.e., FWC, was low, whereas social support directly affected one's health when the stressor was perceived as more severe. Chapter 6 also revealed that the buffer effects appeared among the group respondents that reported lower levels of emotional exhaustion, while the direct effects were found among the group that reported higher levels of emotional exhaustion. The amount of received social support was the same for both groups.

Previously, in the debate about the role of social support in the stressor-strain relationship, more particularly whether social support has a direct effect or acts as a moderator, the focus was primarily on the severity of the stressor. However, it seems that not only the severity of the stressor plays a role in finding stress-buffering effects, but also the severity of the reported strain, which is an aspect that is often overlooked in other studies.

In addition to the matching hypothesis, our findings suggest that the stressor and strain must somehow be related. That is, in Chapter 6 we only found social support to buffer the negative effects of FWC[6] on emotional exhaustion, while social support did not buffer the negative effects of FWC on mental health problems. A closer examination of both strain measures in relation to FWC, shows that, although FWC is related to mental health problems, it is not likely that there is a strong bind between mental health problems (i.e., depression, anxiety and distress) and FWC. Emotional exhaustion refers to feelings of energy depletion due to one's job (Schaufeli & van Dierendonck, 1994, 2001) and is more likely to be affected by strain-based FWC, especially as this form of FWC is partly due to energy depletion as well. So, although stressor and strain differ, both refer to some extent to a lack of energy. Additionally, it seems not only important how strains are measured but also whether the scale reflects a general or a specific strain. Therefore, in future research it seems worthwhile to focus not only on the match between social support and stressor, but also on the other part of the relationship; stressor and strain.

Considering the effect of the different sources of social support on general well-being, spousal support increased both psychological well-being and life satisfaction. Also, in relation to work-family conflict, spousal support was the only source of support that decreased both types of FWC. So, of the four sources of social support examined in this study, spousal support appears to be the most effective one with respect to one's well-being.

Another noteworthy finding, which contradicts the general assumption that social support from the work domain is related to WFC, is that social support from colleagues reduced FWC, particularly time-based FWC. Following, the norm of reciprocity (Gouldner, 1960), it may be that colleagues stand in for each other when time is lacking, knowing that the

[6] Remember that FWC refers to strain-based FWC in this case

other will return a favor if needed. For example, by taking over some tasks enabling the other who experiences the conflict to allocate more time to the home domain. This finding is in line with Bowling et al., (2004) who found that colleagues support each other for what they expect the receiver might do for them in return, rather than simply for who the receiver is.

In addition to the relationship between domain-specific variables, for future research it seems important to investigate how work-related resources relate to strain outcomes in the home domain, and how home-related resources relate to work domain specific strain outcomes.

Gender differences

Men reported better general health and well-being than women, whereas women reported being more satisfied with their life than men. The fact that women reported worse health and well-being than men is in line with role strain theory (Goode, 1960). Role strain theory proposes that, given the limited time and energy one has, having multiple social roles will lead to competing demands, and inevitably the more competing demands one has the higher the total burden one experiences (Bekker, 1999). In the Netherlands, as well as in our sample, the one-and-a-half earners type, with women being employed mostly part-time and men full-time, prevails (SCP, 2006). Consequently, compared to men, women are responsible for the greater part of the domestic tasks and childcare, and hence perform most of these domestic tasks besides their part-time job. Thus, women more than men have to go over to the different social roles they have.

That women report more life satisfaction than men might be related to having multiple roles as well. Although this may seem paradoxical, we believe that women are more satisfied with their life than men as for most women working part-time is a deliberate choice, which enables them to combine work and family responsibilities. For instance, in our sample the majority of the part-time employed women indicated that they chose to work part-time to combine work and family tasks.

Also Nordermark (2002) found among full-time employed Swedish men and women that women reported more stress than men, and that women more often than men wanted to reduce their working hours. The reason that these women, more often than men, wanted to reduce their working hours was connected to family responsibilities. Moreover, he found that full-time employment did not lead to more stress than being employed on a part-time base, and that man and women did not differ in this respect (Nordenmark, 2002). So, although working part-time is a common strategy among women in the Netherlands to combine work and family responsibilities, working part-time seems not fruitful in improving one's health and/or well-being (see also van Rijswijk, 2005), while it seems to enhance one's life satisfaction.

In addition to these individual effects on one's well-being, the total amount of working hours of one's spouse was differently related to men and women's psychological well-being

and life satisfaction. Men's psychological well-being was better and men's life satisfaction higher when their spouse worked more hours, while women, on the other hand reported worse psychological well-being and lower life satisfaction when their spouse work more hours. So, it seems that, in order to be happy and satisfied with one's life, the gap in total working hours between the spouses must not be too large.

Men and women differed with regard to the sources from which they received social support. That is, men reported more social support from spouse, and women more from relatives and friends, and from colleagues. Despite these differences, our findings only revealed a gender difference regarding the relationship between social support from colleagues and general health state. As no other gender differences in the relationship between social support and the other indicators of well-being were observed, generally it can be concluded that gender differences regarding the sources of social support did not explain the gender differences in well-being.

Contrary to most previous research, women reported slightly more strain-based WFC than men. However, this difference was small and no gender differences were found for any of the other types of work-family conflict. So, in general men and women did not differ in work-family conflict. The fact that most women were employed on a part-time base, may explain why, contrary to previous research (Behson, 2002; Carlson, Kacmar, & Williams, 2000), women did not report more FWC than men. Working part-time (probably) enables these women to combine family responsibilities with their job.

Regarding gender differences in the relation between social support and work-family conflict, our findings revealed that especially the work-related sources of support were differently related to men and women's work-family conflict. That is, men did benefit from social support from both their supervisor and colleagues, while women did not. Actually, women reported more work-family conflict when they received social support from their supervisor.

A possible reason why women experience more work-family conflict when they received social support from their supervisor may be that women, because they have stronger ties to formal networks than men (van der Hulst, 2004), more than men have the feeling that receiving social support is not free from obligations. According to Gouldner's (1960) norm of reciprocity one should help those who have been helpful in the past. As social support can be considered a reciprocal behavior, it is likely that receiving social support leads to feeling obliged to provide something in return, and hence leads to providing social support to the person who initially provided social support (Buunk, Doosje, Jans, & Hopstaken, 1993).

Moreover, Buunk et al., (1993) found quite strong evidence that "in general the perception of receiving more help than one can or will provide will be related to strain" (p. 805). Hence, in our study it seems likely that women have the feeling that they have to do something in return for being supported by their supervisor. However, the fact that most women work part-time, which leaves less or no room for additional tasks or for catching up

on tasks that still need to be done, may lead to more work-family conflict, especially time-based conflict.

Summarizing, gender differences in work-family conflict were small and pertained to only one form of work-family conflict. Hence, generally men and women did not differ in work-family conflict. Gender differences in social support were as expected. In general men reported better health and psychological well-being, whereas women reported more life satisfaction. With regard to the relationships between social support and well-being, and social support and work-family conflict, men and women seemed to benefit differently from social support.

LIMITATIONS AND STRENGTHS

Although this study improves our understanding of the relationships between social support, work-family conflict and well being, it has some limitations that are important to note. First, the data used in our study were cross-sectional, which makes it impossible to draw clear conclusions about causal relations, even if some cause-effect sequences may seem theoretically more plausible than others. Therefore, in future, it would be preferable to study the relationships between social support, work-family conflict and well being longitudinally.

Second, we used subjective or self-report data, which may lead to data contamination due to common method variance between the measurement constructs (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Although several studies have shown common method variance not to be as problematic as once thought (Semmer, Zapf, & Greif, 1996; Spector, 1992), obtaining data through multiple methods and from multiple sources (Podsakoff & Organ, 1986) could benefit future research. Moreover, our findings and conclusions are based on information about how one felt rather than on more objective data like i.e., organizational data on actual days lost to sickness, health care utilization costs, actual illness, accidents, and physiological health measures, like i.e., blood pressure, heart rate and stress hormone levels in the blood.

Third, our data are from a Dutch population and may not be entirely generalizable to other countries, as the nature of part-time jobs among Western countries differs. In the Netherlands, part-time jobs are so-called new-concept or 'good' part-time jobs. Compared to conventional or 'bad' part-time jobs which are mostly temporary, have few career possibilities and low salaries (Barnett, 1998; Kahne, 1992), 'good' part-time jobs, like in the Netherlands, are characterized by a fixed contract, good career perspectives, and a salary that is pro-rated to comparable fulltime jobs (Barnett, 1998; Tilly, 1992; van Rijswijk, 2005). Moreover, given the prevailing one-and-a-half earner type in the Netherlands, it is common for Dutch women, regardless of their education level to work part-time (SCP, 2006). Consequently, it is unlikely that the women in our study resemble (part-time) employed women in other countries, making it difficult to generalize our results to studies performed in

other countries. Also, the fact that women mostly work part-time, may have led to some confounding of gender effects with effects of working hours.

Finally, although we used a measure for social support that included four types of social support stemming from two work and two home domain-related sources, we only distinguished between the sources of support, as distinguishing between both social support sources and types would have lead to unreliable 2-item scales. So, our study does not provide insight into the impact that the different types of support may have on work-family conflict and well-being. However, Friendman and Greenhaus (2000) found the effect of emotional and practical support on work-family conflict to differ, making it advisable to distinguish between the sources as well as the types of support in future research.

Despite these limitations, the study has a number of strengths. First, the study represents one of the first attempts to examine the underlying mechanism of social support in relation to work-family conflict and well-being. Second, in the study both directions of work-family conflict, and strain and time-based conflict were included. Third, in this study sources of social support from both the work and home domain were included. The fact that the social support measures contained four types of support: emotional, practical, appraisal and informational support, may also be considered a strength. Fourth, this study was carried out among respondents with different jobs across various organizations, hence our data are not specific to a single occupation, but provide insight about the relationship between social support and work-family conflict, applicable to the working population in general. Moreover, as one study was conducted among employees working in the mental health care sector, in so-called high stress jobs, some conclusions concerning health, job stress and FWC pertaining to these kinds of jobs could be drawn. Finally, well-being was measured as a multidimensional concept, including general health state, psychological well-being and life satisfaction, rather than using a single measure reflecting life or job satisfaction.

PRACTICAL IMPLICATIONS

The present dissertation showed that social support is beneficial for one's general well-being in all circumstances, and not only when someone experiences high levels of work-family conflict. Thus, independent from the severity of the stressor, i.e., in the present dissertation work-family conflict, receiving social support leads to better well-being. As, no gender differences were found in this respect, both men and women benefit from social support regardless of their work-family conflict.

A closer look at the different sources of social support and their relationship with three indicators of well-being (general health state, psychological well-being, and life satisfaction), revealed that social support was not so much related to general health state. That is, of the four social support sources only social support from colleagues was associated positively with women's general health state. None of the other sources showed any relation to men and

women's general health state. Furthermore, although different sources of social support were related to different indicators of well-being, social support from one's spouse appeared to be an important resource in relation to various aspects of well-being for both men and women. These findings indicate that it matters from who one receives social support and that the effectiveness of the sources of social support differs in relation to the various indicators of well-being.

Results of Chapter 4 showed that effectiveness of the sources of social support also differs in relation to the various forms of work-family conflict. Moreover, gender differences revealed that giving social support to a male colleague or subordinate has other consequences than giving support to a female colleague or subordinate. Therefore, supervisors should be aware of these gender differences and act upon them, such that their support is not counterproductive leading to more work-family conflict.

Although, levels of WFC and FWC were not very high, suggesting that work-family conflict is not a very severe stressor, it should be noticed, that many people, experience work-family conflict from time to time, and that work-family conflict is associated with impaired well-being. For example, with regard to FWC Chapter 6 reveals that FWC in addition to other job stressors, relates to employee mental health. Hence, work-family conflict should be on the agenda of employers and policy makers. In addition to more common family-friendly policies, like part-time jobs, flextime, compressed work week, work at home and childcare facilities, in line with results of Chapter 4, i.e., that employees benefit from the support they receive from other people at work, employers could also provide opportunities for their employees to bind, form and maintain social networks with other people at work.

Generally, different variables are important in relation to WFC and FWC. Regarding WFC, findings of Chapter 4 showed that working more hours resulted in more WFC. Chapter 5 showed that WFC, more than FWC was related to indicators of well-being. Therefore, employers can improver their employees' psychological well-being and life satisfaction by not letting them work too much overtime which will result in less WFC and hence in enhanced psychological well-being and life satisfaction. In a similar vein, realistic working hours that fit the amount of work which needs to be done in order to perform one's job successfully, lead to less WFC, which has a positive effect on one's spouse's life satisfaction. So, if employers make sure that their employees experiences less WFC, not only the employee, his or her spouse benefits as well.

Gender differences in psychological well-being and life satisfaction associated with the total amount of working hours of one's spouse argue for a reconsideration of the prevailing Dutch one-and-a-half earner-type. That is, in order to enhance men and women's psychological well-being and life satisfaction it seems worthwhile for women to increase their number of working hours, while for men a decrease seems beneficial. However, it seems far from easy to bring about a change in working hours among women and men. Especially, as the majority of women choose to work part-time to be able to combine work and family

demands. Men on the other hand mention a preference for reduced working hours, while in practice most of them continue to work full-time (Euwals, Hogerbrugge, & Den Ouden, 2005). Recent governmental emancipation policies in the Netherlands focus on the increase in both the labor force participation and total number of working hours of women. Findings of the present dissertation suggest that not only the need for a change in women's total amount of working hours should be addressed but also a reconsideration of men's total working hours.

In addition to employee well-being in general, it appeared that in jobs where employees have frequent and intense contact with patients, it will be useful to pay careful attention to factors that can be improved in order to diminish the stress level of the work situation. More particularly this involves, giving those employees more autonomy if possible, encouraging mutual social support among colleagues, protecting them from too heavy workloads, and providing work-family support. All are measures that are within reach of management and can probably prevent or at least diminish health problems due to the stressful nature of these jobs. Nevertheless, when concerned with stress prevention employees with low levels of patient interaction in their job should not be overlooked, as these employees may suffer adverse health effects from various stressors as well. For them also, paying attention to workload and, especially, to diminishing family-to-work conflict by providing relevant work-family programs may enhance their well-being and prevent burnout. Generally, employees with high and low levels of patient interaction should not be treated alike in programs of stress prevention, as different stressors are associated with emotional exhaustion and mental health problems of employees working in both job types.

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Samenvatting (Summary in Dutch)

In de laatste decennia is de arbeidsparticipatie van vrouwen gestegen (SCP, 2006). Een gevolg hiervan is de afname van het aantal traditionele huishoudens waarin de man kostwinner is en de vrouw geen betaalde arbeid verricht, maar het huishouden en zorgtaken voor haar rekening neemt. In de huidige westerse samenleving prevaleert momenteel het zogenaamde tweeverdienershuishouden. Kenmerkend voor dit type huishouden is dat zowel de man als de vrouw buitenshuis werkt en een baan combineert met het huishouden en zorgtaken thuis. In Nederland, waar veel vrouwen parttime werken, prevaleert het anderhalfverdienershuishouden. In dit type huishouden werkt een van de partners fulltime (meestal de man) en de andere partner parttime. In beide typen huishoudens participeren de man en de vrouw in het werk- en thuisdomein. Wanneer deelname in het ene domein wordt bemoeilijkt of onmogelijk is door deelname in het andere domein spreekt men van werk-thuis conflict (Greenhaus & Beutell, 1985). Werk-thuis conflict wordt gezien als een belangrijke stressor die zo nu en dan, in meer of mindere mate, wordt ervaren door mensen die betaald werk combineren met zorgtaken (bijv. het huishouden en de zorg voor kinderen). Onderzoek heeft aangetoond dat werk-thuis conflict nadelige gevolgen heeft voor gezondheid en welzijn. Sociale steun, zo blijkt uit eerdere studies, speelt een belangrijke rol in het verminderen van stress en het verbeteren van gezondheid en welzijn.

In dit proefschrift is onderzocht hoe sociale steun, werk-thuis conflict en welzijn elkaar beïnvloeden. Het doel van dit onderzoek is enerzijds om meer inzicht te krijgen in de relatie tussen sociale steun, werk-thuis conflict en welzijn, en anderzijds om sekseverschillen in deze relatie inzichtelijker te maken. De volgende vragen stonden hierbij centraal: hoe werkt sociale steun in relatie tot werk-thuis conflict en welzijn? Maakt het uit van *wie* steun wordt ontvangen voor het verminderen van werk-thuis conflict en het verbeteren van welzijn? Hoe belastend is werk-thuis conflict voor het welzijn van werknemers, en speelt het werk-thuis conflict van de partner hierin een rol?

Sociale steun kan worden ontvangen van verschillende bronnen uit het werk- en thuisdomein, bijvoorbeeld van collega's of familie en vrienden. Mannen ontvangen over het algemeen steun vanuit andere bronnen dan vrouwen. Daarnaast zijn er sekseverschillen ten aanzien van de verdeling van werk en zorgtaken; mannen werken meestal meer uren buitenshuis dan vrouwen, en vrouwen zijn in de meeste gevallen verantwoordelijk voor het leeuwendeel van de huishoudelijke en zorgtaken. Niet eerder is echter onderzocht of deze sekseverschillen in sociale steun en de verdeling van werk en zorgtaken de relatie tussen sociale steun, werk-thuis conflict en welzijn kunnen verklaren. In het huidige proefschrift wordt daarom niet alleen ingegaan op sekseverschillen in sociale steun, werk-thuis conflict en welzijn, maar wordt ook onderzocht of deze sekseverschillen invloed hebben op de relatie tussen sociale steun, werk-thuis conflict en welzijn.

In het inleidende hoofdstuk van dit proefschrift (**hoofdstuk 1**) wordt het doel van het onderzoek beschreven en de hoofdvraag verder uitgewerkt. Daarnaast worden de drie hoofdconcepten – sociale steun, werk-thuis conflict en welzijn – uitgelegd. Eerst wordt

ingegaan op werk-thuis conflict. Zoals hierboven beschreven is er sprake van werk-thuis conflict wanneer deelname in het ene domein wordt bemoeilijkt of onmogelijk is door deelname in het andere domein. Werk-thuis conflict kent twee richtingen; van werk naar thuis (WTC) en van thuis naar werk (TWC). In het eerste geval wordt deelname in het thuisdomein bemoeilijkt of onmogelijk gemaakt door de eisen die worden gesteld aan iemand door deelname in het werkdomein. TWC vindt plaats als deelname aan het werkdomein wordt bemoeilijkt of onmogelijk is door de eisen die deelname in het thuisdomein aan iemand stelt. Wanneer geen onderscheid wordt gemaakt tussen WTC en TWC wordt de algemene term werk-thuis conflict gebruikt. Naast de twee richtingen van conflict, worden over het algemeen drie verschillende soorten werk-thuis conflict onderscheiden; tijds-, spannings en gedragsgerelateerd conflict. Er is sprake van tijdsgerelateerd conflict als de tijd die wordt besteed aan deelname in het ene domein (werk of thuis) te weinig tijd overlaat om deel te nemen aan activiteiten in het andere domein. Spanningsgerelateerd conflict treedt op wanneer spanningen die worden ervaren in het ene domein leiden tot een niet optimaal functioneren in het andere domein. Wanneer het gedrag dat vereist wordt in het ene domein het vervullen van taken en eisen in het andere domein bemoeilijkt spreken we van gedragsgerelateerd conflict (Greenhaus & Beutell, 1985).

Ten tweede wordt ingegaan op sociale steun. Sociale steun is geen eenduidig concept, maar een metaconstruct dat bestaat uit meerdere theoretische concepten, en kent veel verschillende definities. Centraal in de meeste definities van sociale steun staat de uitwisseling van (hulp)middelen tussen personen. In dit proefschrift is sociale steun gedefinieerd als een complex transactioneel proces waarin middelen worden uitgewisseld tussen ten minste twee personen, gericht op het helpen van degene die de steun ontvangt. Sociale steun omvat emotionele steun (empathie, zorg, liefde en vertrouwen), instrumentele steun (feitelijk hulp in de vorm van tijd, geld en energie), evaluatieve steun (feedback over persoon en gedrag) en informationele steun (informatie, advies en suggesties). Sociale steun kan zowel uit het werk- als thuisdomein afkomstig zijn. In het huidige onderzoek worden vier bronnen van steun onderscheiden; leidinggevende, collega's, partner en, familie en vrienden. De sociale steun schaal die in dit onderzoek werd gebruikt om sociale steun te meten omvatte ook de vier verschillende soorten sociale steun.

Tenslotte wordt ingaan op welzijn, met name het verschil tussen welzijn en gezondheid. De exacte betekenis van de twee concepten wordt meestal ontleend aan de operationalisatie ervan (Danna & Griffin, 1999). Opgemerkt dient echter te worden dat er in de bestaande literatuur geen duidelijk verschil wordt gemaakt tussen gezondheid en welzijn. Deze onduidelijkheid in terminologie en conceptualisatie van gezondheid en welzijn heeft ertoe geleid dat de concepten elkaar overlappen, en inwisselbaar worden gebruikt in verschillende studies. Met andere woorden in de ene studie wordt het concept gezondheid genoemd, terwijl hetzelfde concept in de andere studie welzijn wordt genoemd. In dit proefschrift wordt de conceptualisatie van Danna en Griffin (1999) gebruikt. Deze auteurs

stellen dat "gezondheid over het algemeen fysiologische en psychologische symptomen in een medische context omvat (bijv. gerapporteerde klachten of de diagnose van een ziekte), terwijl welzijn over het algemeen wordt gedefinieerd als een meer omvattend concept waarin rekening wordt gehouden met de persoon als geheel" (p.364). Naast indicatoren van gezondheid (fysieke, fysiologische en psychologische) omvat welzijn ook de beleving van situaties en gebeurtenissen, bijvoorbeeld de tevredenheid met het leven. Verder werd in dit eerste hoofdstuk ingaan op sekseverschillen in werk-thuis conflict, sociale steun en welzijn. De data voor dit onderzoek werden verzameld via CentERdata, een instituut van de universiteit van Tilburg dat gespecialiseerd is in dataverzameling via internet. De studie beschreven in hoofdstuk 6 vormt hierop een uitzondering. De data van dit hoofdstuk werd verzameld onder werknemers van 10 verschillende geestelijke gezondheidszorg instellingen.

Eerder onderzoek heeft aangetoond dat sociale steun een belangrijke rol speelt in het verlagen van stress en het verbeteren van gezondheid en welzijn. Het blijft echter onduidelijk welk mechanisme hieraan ten grondslag ligt. Met andere woorden het is niet duidelijk *op welke manier* sociale steun stress verlaagt en leidt tot een beter welzijn. Om meer inzicht te krijgen in het onderliggende mechanisme van sociale steun in relatie tot welzijn, worden in **hoofdstuk 2** drie theoretische modellen getoetst. De stressor in elk van deze modellen is werk-thuis conflict. Het eerste model veronderstelt dat sociale steun en werk-thuis conflict onafhankelijk van elkaar invloed hebben op welzijn. Een toename in sociale steun leidt tot een verbetering van welzijn, ongeacht de mate van het ervaren werk-thuis conflict. Het tweede model veronderstelt dat sociale steun welzijn verbetert door het verminderen van werk-thuis conflict, waardoor de negatieve gevolgen van werk-thuis conflict voor welzijn afnemen. Het derde model veronderstelt dat sociale steun werkt als een buffer. Dit betekent dat sociale steun *de relatie* tussen werk-thuis conflict en welzijn beïnvloedt, zodanig dat mensen die weinig sociale steun ontvangen meer hinder ondervinden van werk-thuis conflict dan mensen die veel steun ontvangen. Een aanname van dit laatste model is dat sociale steun alleen effectief is in stressvolle situaties (Hobfoll, 1986). De drie modellen werden getoetst aan de hand van data van 611 werkende mannen en vrouwen die getrouwd waren of samenwoonden. Vergelijking van deze drie modellen toonde aan dat sociale steun een positief effect heeft op welzijn, ongeacht de mate van werk-thuis conflict. Ook werd getoetst of het mechanisme van sociale steun verschilt voor mannen en vrouwen. Er werden geen sekseverschillen gevonden; het ontvangen van steun heeft een gunstige invloed op het welzijn van mannen en vrouwen, ongeacht het ervaren werk-thuis conflict.

Over het algemeen rapporteren werkende vrouwen meer gezondheidsklachten dan werkenden mannen (LISV, 2001; SCP, 2007). In **hoofdstuk 3** wordt daarom onderzocht of er een relatie is tussen sekseverschillen in welzijn, en de soort bron van wie mannen en vrouwen sociale steun ontvangen. Meer specifiek, richtte de studie zich op de verschillen tussen mannen en vrouwen ten aanzien van de bronnen van sociale steun als mogelijke voorspeller van sekseverschillen in gezondheid, psychisch welbevinden en tevredenheid. Vier bronnen

van sociale steun - twee werkgerelateerde en twee bronnen uit het thuisdomein – werden onderscheiden: leidinggevende, collega's, familie en vrienden, en partner. De studie werd uitgevoerd onder 450 werkende mannen en vrouwen die deel uitmaakten van een tweeverdienerhuishouden.

Mannen rapporteerden een betere gezondheid en meer psychisch welbevinden dan vrouwen, terwijl vrouwen meer tevreden waren met hun leven dan mannen. Overeenkomstig met eerder onderzoek bleek dat mannen meer steun ontvingen van hun partner dan vrouwen en dat vrouwen meer steun van familie en vrienden ontvingen dan mannen. Met betrekking tot de sociale steun bronnen uit het werkdomein bleek dat vrouwen meer steun ontvingen van hun collega's dan mannen. Ondanks deze verschillen werden alleen sekseverschillen gevonden voor de relatie tussen sociale steun van collega's en gezondheid; de gezondheid van vrouwen werd beter wanneer ze steun van collega's ontvingen, terwijl steun van collega's geen effect had op de gezondheid van mannen. Behalve dit ene verschil kan worden geconcludeerd dat sekseverschillen in welzijn niet kunnen worden verklaard door verschillen ten aanzien van de bronnen van wie mannen en vrouwen steun ontvangen.

Hoofdstuk 4 beschrijft de relatie tussen sociale steun en werk-thuis conflict. Onderzocht werd hoe sociale steun van verschillende bronnen (leidinggevende, collega's, familie en vrienden, en partner) samenhangt met tijds- en spanningsgerelateerd werk-thuis conflict. Beide richtingen van werk-thuis conflict werden in deze studie onderzocht. De bevindingen van deze studie laten zien dat sociale steun van de partner negatief samenhangt met zowel tijds- als spanningsgerelateerd TWC en dat sociale steun van collega's negatief samenhangt met tijdsgerelateerd TWC. Met andere woorden sociale steun van de partner en van collega's vermindert TWC. Daarnaast onderzochten we in deze studie onderzochten we of de relatie tussen sociale steun afkomstig van de vier bronnen en werk-thuis conflict verschilt voor mannen en vrouwen (N = 444 tweeverdieners). Voor sociale steun van leidinggevende en van collega's bleek dit het geval te zijn. Wanneer mannen sociale steun van hun leidinggevende of collega's ontvingen had dit een gunstig effect op hun tijdsgerelateerd WTC en op hun spanningsgerelateerd TWC; hun conflict nam af. Voor vrouwen daarentegen nam het tijdsgerelateerd WTC toe wanneer ze steun ontvingen van hun leidinggevende. Hun spanningsgerelateerd TWC werd niet of nauwelijks beïnvloed door sociale steun van collega's.

Eerder onderzoek heeft aangetoond dat stress, naast de nadelige gevolgen voor de persoon die de stress ervaart, ook schadelijk kan zijn voor de partner van degene die de stress ervaart (Bolger, DeLongis, Kessler, & Wethington, 1989; Westman, 2001; Westman & Etzion, 1995). In **hoofdstuk 5** wordt onderzocht of werk-thuis conflict samenhangt met het welzijn van degene die werk-thuis conflict ervaart, en of werk-thuis conflict ervaren door de ene partner samenhangt met het welzijn van de andere partner. Deze studie is uitgevoerd onder 164 tweeverdienerkoppels. Het ervaren van WTC heeft zowel voor mannen als vrouwen negatieve gevolgen voor hun welzijn. Voor mannen geldt dat WTC samenhangt met

psychisch welbevinden en tevredenheid met het leven; hun psychisch welbevinden was minder en ze waren minder tevreden met hun leven.Voor vrouwen bleek dat WTC alleen samenhing met een verminderd psychisch welbevinden. Dit verschil werd niet verklaard door verschillen in WTC; mannen en vrouwen rapporteerden een ongeveer gelijke mate van conflict. Alleen vrouwen ondervonden hinder van TWC. TWC had een negatief effect op de gezondheid van vrouwen. Voor mannen vonden we geen verband tussen TWC en welzijn, psychisch welbevingen en tevredenheid. Mannen en vrouwen rapporteerden ongeveer evenveel TWC. Wat betreft de negatieve gevolgen van het werk-thuis conflict van de ene partner op het welzijn van de andere partner bleek voor zowel mannen als vrouwen dat het WTC van de ene partner negatieve gevolgen had voor de tevredenheid met het leven van de andere partner. Deze bevindingen laten zien dat vrouwen meer dan mannen het hoofd moeten bieden aan factoren in zowel het werk als thuisdomein om zich gezond en gelukkig te voelen, terwijl het welzijn van mannen hoofdzakelijk samenhangt met werkgerelateerde factoren.

Hoofdstuk 6 beschrijft de relatie tussen TWC en emotionele uitputting en mentale gezondheid. Deze studie is uitgevoerd onder 1008 werknemers werkzaam in de geestelijke gezondheidssector. Onderzocht werd of TWC samenhangt met emotionele uitputting en mentale gezondheid ongeacht werkgerelateerde stressoren. Daarnaast werd onderzocht of de impact van de werkgerelateerde stressoren en TWC elkaar versterken of verzwakken. In deze studie werd onderscheid gemaakt tussen twee soorten banen; banen waarin werknemers veel contact hebben met cliënten en waarin de werkzaamheden primair gericht zijn op het verlenen van hulp, en banen die niet primair gericht zijn op hulpverlening, maar waarin werknemers persoonsgerelateerde taken uitvoeren waarbij zij te maken hebben met anderen, de zogenaamde ondersteunende banen. Stressoren die werden onderzocht waren: werkdruk, emotionele belasting, sociale steun van collega's en autonomie. Voor beide soorten banen bleek dat TWC bijdraagt aan gevoelens van emotionele uitputting en een slechtere mentale gezondheid, nadat was gecontroleerd voor de werkgerelateerde stressoren. De impact van de werkgerelateerde stressoren, werkdruk en emotionele belasting, en van TWC werden niet door elkaar versterkt. Voor werknemers in ondersteunende banen bleek het ontvangen van sociale steun van collega's de relatie tussen TWC en emotionele uitputting te verzwakken. Deze bevindingen tonen aan dat de gezondheid van werknemers, niet alleen met werkgerelateerde stressoren samenhangt maar ook met stressoren uit het thuisdomein die interfereren met het werkdomein. Voor stressonderzoek betekent dit dat niet alleen de risico's vanuit het werk moeten worden onderzocht maar dat er ook aandacht moet zijn voor stressoren vanuit het thuisdomein.

In **hoofdstuk 7** tenslotte worden de belangrijkste bevindingen van dit proefschrift samengevat, en worden de theoretische en praktische implicaties van het onderzoek besproken. Over het geheel genomen draagt dit proefschrift bij aan het begrijpen van de relatie tussen sociale steun, werk-thuis conflict en welzijn. Bovendien verschaft het inzicht in sekseverschillen in sociale steun, werk-thuis conflict en welzijn, en in hun onderlinge relatie.

Een belangrijke bevinding is dat sociale steun effectief is in het verbeteren van welzijn, ongeacht of een iemand werk-thuis conflict ervaart. Zowel voor mannen als vrouwen blijkt dit zo te zijn. Een tweede belangrijke bevinding is dat het uitmaakt van wie een persoon steun ontvangt, zowel met betrekking tot het verbeteren van welzijn als het verminderen van werk-thuis conflict. Bovendien blijkt de invloed van de verschillende bronnen van sociale steun verschillend te zijn voor mannen en vrouwen. Sociale steun van collega's had alleen een gunstig effect op de gezondheid van vrouwen en niet op de gezondheid van mannen. Daarentegen, nam het werk-thuis conflict van mannen af wanneer ze sociale steun van hun collega's en van hun leidinggevende ontvingen, terwijl het conflict van vrouwen niet werd beïnvloed of zelfs toenam. Een derde belangrijke bevinding is dat TWC bijdraagt aan emotionele uitputting en een verminderde mentale gezondheid, ongeacht de werkgerelateerde stressoren. TWC van de ene partner had geen effect op het welzijn van de andere partner. Wat betreft de negatieve overdracht van WTC van de ene partner op het welzijn van de andere partner, vonden we een negatieve relatie met tevredenheid met het leven voor zowel mannen als vrouwen. Met andere woorden mannen en vrouwen zijn minder tevreden met hun leven naarmate hun partner meer WTC ervaart.

Vanuit een praktisch oogpunt gezien suggereren de bevindingen van dit proefschrift dat het ontvangen van sociale steun in alle situaties effectief is voor het welzijn van medewerkers, en niet alleen wanneer werknemers (veel) werk-thuis conflict ervaren. Naast veel gebruikte manieren om werk en thuis te combineren, zoals bijvoorbeeld parttime banen en flexibele werktijden, zouden organisaties veel meer gebruik kunnen maken van aanwezige sociale netwerken op het werk. De gevonden sekseverschillen tonen echter aan dat mannen die werk-thuis conflict ervaren meer profijt hebben van steun van hun leidinggevende dan vrouwen. Leidinggevenden zouden zich hier bewust van moeten zijn zodat vermeden kan worden dat vrouwen als gevolg van het ontvangen van steun meer werk-thuis conflict ervaren.

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Geertruidenberg, januari 2008
Geertje van Daalen

UITNODIGING

Graag nodig ik u uit voor het bijwonen van de verdediging van mijn proefschrift:

SOCIAL SUPPORT, DOES IT MAKE A DIFFERENCE?

Examining the relationship between social support, work-family conflict and well-being

op vrijdag 14 maart 2008 in de aula van de Universiteit van Tilburg, Warandelaan 2 te Tilburg.

Inleiding: 10.00 uur
Academische zitting: 10.15 uur

Aansluitend is er een receptie ter plaatse.

Geertje van Daalen
Ringelberchstraat 16
4931 XL Geertruidenberg
0162-520456
G.vanDaalen@uvt.nl

Nowadays, most men a
responsibilities. Combi
affecting one's well-be
enhance one's well-being, as it reduces stressors and strains. The present book addresses the role of social support in relation to work-family conflict and well-being. Moreover, it uncovers gender differences in social support, work-family conflict and well-being, as well as in the relationship between these variables.

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